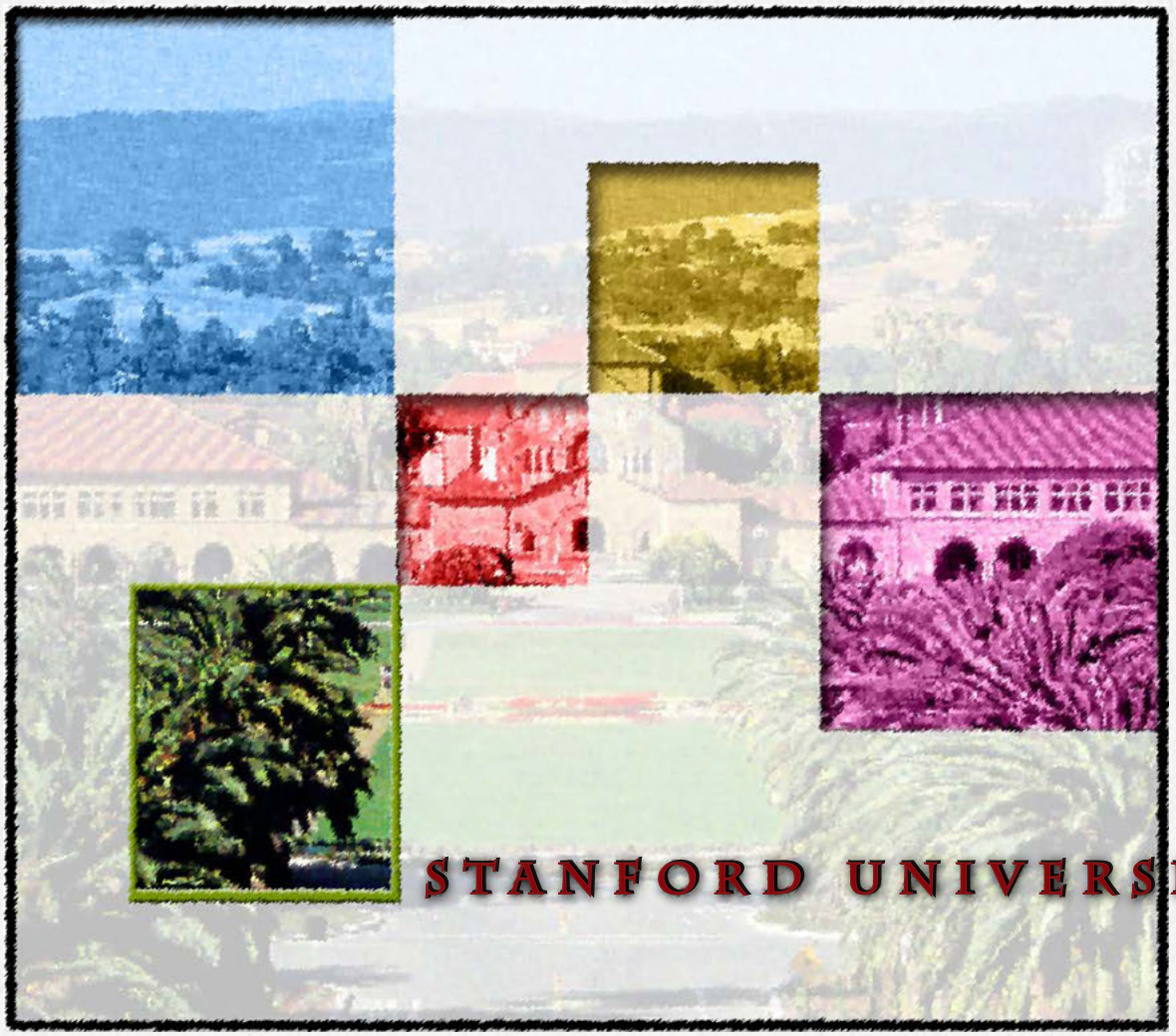
GENERAL USE PERMIT 2000

ANNUAL REPORT NO. 17



COUNTY OF SANTA CLARA
PLANNING OFFICE

April 2018 CRG Draft

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Prologue

The Stanford University, General Use Permit (GUP) 2000 Seventeenth Annual Report (AR 17) provides public documentation that summarizes development at Stanford University and required environmental mitigation activity within the unincorporated Santa Clara County, for the monitoring period from September 1, 2016, through August 31, 2017. This report documents both new projects approved during the reporting period and the status of ongoing projects. Section I provides an introduction and context to the AR 17. Information on project status and a summary of development through the AR 17 reporting period is provided in Section II. Section III provides a summary of GUP compliance. Details and illustrations of projects that received Architecture and Site Approval (ASA) during this reporting period are provided in Section IV. Section V describes anticipated development, Section VI provides information on other significant information in the reporting period, and Section VII provides information on references and the project team.

Appendices A, B, C, D, E, and F contain information on campus maps, GUP conditions and additional compliance details, summaries of cumulative development on campus, traffic monitoring results, sustainable activities initiated and ongoing by Stanford University and a summary of Stanford's approved Alternate Means Programs, respectively.

The production team for this annual report endeavored to make this report user friendly. If you have comments or questions about the format, you may forward your comments to the Santa Clara County Planning Office. For the 17th annual reporting period, Kavitha Kumar, was the project manager for the Santa Clara County Planning Office for the Stanford University environmental mitigation monitoring and reporting program.

Specific questions regarding this report or the Stanford Community Plan, General Use Permit or the Environmental Impact Report may be directed to:
Kavitha Kumar, Senior Planner/Stanford University Program Manager. Email: kavitha.kumar@pln.sccgov.org.

Stanford University owns 8,180 acres of land, including 4,017 acres within unincorporated Santa Clara County that are subject to the land use jurisdiction and regulatory authority of the County. Please see Map 1 in Appendix A, which shows governmental jurisdiction on Stanford lands. Stanford University is a private institution and is subject to local zoning controls and project approval procedures. Stanford University land in Santa Clara County includes the academic campus, residential areas, and most of the foothills east of Alpine Road.

FIGURE 1: REGIONAL LOCATION

Santa Clara County guides future use of these lands through (1) the General Plan, (2) the Stanford Community Plan (CP), (3) County Zoning Ordinance, (4) other County ordinances and policies, and (5) the 2000 General Use Permit (GUP).

In November 1999, Stanford University submitted a Draft CP/GUP Application to Santa Clara County. As a result of an extensive public review process, significant changes were made in the proposed CP/GUP. Santa Clara County, the lead agency under the California Environmental Quality Act (CEQA), prepared a Program

Environmental Impact Report (EIR) to disclose the significant environmental effects of development pursuant to the CP/GUP. In December 2000, the County Board of Supervisors certified the EIR and approved the Final CP/GUP (2000 GUP).

The 2000 GUP replaced the 1989 GUP. It is the permit under which Stanford continues its academic and support uses, and authorizes the University to develop the following facilities:

- Academic and academic support facilities (an additional 2,035,000 net square feet (sq. ft.) plus the square footage remaining under the 1989 GUP)
- Childcare or community centers (an additional 40,000 sq. ft.)
- Temporary trailers and surge space (up to 50,000 sq. ft.)
- Parking structures and lots (2,300 net new parking spaces)
- Housing (3,018 housing units)

The Board approval of the 2000 GUP and the EIR resulted in mitigation measures. The EIR identified mitigation measures, which were formally adopted in the Mitigation Monitoring and Reporting Program (MMRP).

GUP Condition D.2 requires Stanford to implement the identified MMRP mitigation requirements as follows:

> "If at any time the County Planning Commission determines that Stanford is not in compliance with one or more conditions of the General Use Permit, it may take corrective action as provided in the County Ordinance Code including, but not limited to, suspension of any future development approvals until such time as the conditions are met. Failure of Stanford to comply with aspects of the Mitigation Monitoring and Reporting Program adopted for the GUP or any specific projects approved under the GUP for which Stanford is responsible shall also constitute a violation of these GUP conditions for which corrective action may be taken as described above."

This Seventeenth Annual Report (AR 17) documents Stanford's development activity and compliance with both the conditions of the 2000 GUP and any specific conditions associated with proposed building projects. It covers the period from September 1, 2016, to August 31, 2017. Activities or projects that occurred after August 31, 2017, are beyond the scope of this Annual Report, but will be presented in the next Annual Report that will cover activities between September 1, 2017, and August 31, 2018.

This report is organized into seven primary sections and six appendices:

I. Introduction - presents the background and overall requirements of the 2000 GUP, the reporting period and organization of the Annual Report, and provides a glossary of terms used in this report.

II. Development Overview - presents major statistics on certain 2000 GUP provisions, including the academic building area cap, the distribution of development, development projects that do not count toward the building area cap, housing, and parking.

III. Overview of Monitoring During Fifteenth Year - summarizes Stanford's activities and status of compliance with 2000 GUP conditions.

IV. Project Summaries - provides summaries of major Stanford projects that received Architectural and Site Approval (ASA) within this Annual Report's reporting period.

V. Anticipated Future Development - lists projects anticipated for submittal/approval during the next Annual Report period. Includes a map showing proposed locations.

VI. Other Information - presents references for the information used in this Annual Report and the persons involved in its preparation.

Appendix A - provides maps to illustrate the general orientation of Stanford University lands and campus.

Appendix B - presents the complete list of 2000 GUP conditions and associated activities in the reporting period.

Appendix C - provides cumulative tables and location maps for building projects, housing projects, parking projects, and grading projects.

Appendix D - provides a summary of the result of traffic monitoring at the Stanford University campus between 2001 and 2017.

Appendix E – presents the Stanford Sustainability Annual Report.

Appendix F – provides a summary of Stanford's approved Alternate Means Programs.

Glossary of Terms

The following terms and acronyms are used in this Annual Report:

AR	**Annual Report:** "AR 17" refers to Stanford's 17th annual report on development and compliance with GUP conditions.
ASA	**Architectural and Site Approval:** A procedure established by the County of Santa Clara Zoning Ordinance to review the quality of site and architectural design associated with a proposed project. ASA may establish conditions of approval that change and improve development design.
ASX	**Small Project Exemption from ASA:** Projects that are below a certain threshold due to their minimal impact are exempt from the full ASA process and public hearing. ASX is a discretionary staff approval process. ASX may establish conditions of approval that change and improve development design.
CEQA	**California Environmental Quality Act:** The overarching California law under which environmental reviews are conducted.
CP	**Stanford Community Plan:** Plan that refines the policies of the Santa Clara County's 1995 General Plan as they apply to Stanford lands under County jurisdiction.
EIR	**Environmental Impact Report:** Documents the result of environmental analyses conducted under CEQA.
GUP	**2000 General Use Permit:** Permit issued to Stanford by the County of Santa Clara, which describes the allowable distribution of additional building area, and establishes procedures under which construction may occur and associated measures that must be accomplished before, during and after construction as conditions of approval for development.
NPS	**Non-point source:** Refers to pollution of runoff by diffuse sources, such as vehicle traffic on parking lots or streets.
NSF	**Net square feet:** Total "net" or overall change in square footage. This category designates a total amount of positive or negative square footage for a project, based on square footage of total construction ("gross square footage") less any credits for demolition.
SDS	**Sustainable Development Study:** A Study required under GUP Condition E.5 that was submitted by Stanford and approved by the Board of Supervisors in 2009.

GUP Building Area Cap

The 2000 GUP (GUP Condition A.1.b) establishes a 2,035,000-net-square-foot building area cap for new academic and academic support uses. The limit applies to most nonresidential development that Stanford proposes to build during the time that this GUP is in effect. Because the exact amount of square footage may change due to design refinements that occur between initial ASA application and subsequent issuance of a building permit, the County requires that the actual square footage deducted from the building area cap be documented at the time a building permit is issued. The cumulative total building area authorized during the reporting period is provided in this annual report for those projects that received building permits between September 1, 2016 and August 31, 2017.

The GUP generally distributes the 2,035,000 sq. ft. of additional academic and academic support facilities among 11 development districts on the Stanford Campus. Map 2 in Appendix A shows the development districts. The majority of 2000 GUP academic building area is allocated to the Campus Center. The allocation of square footage between the development districts can deviate from the GUP's general allocation as long as the GUP procedures are followed (see GUP Condition E.2). For example, during the AR 8 reporting period, the allocation for Campus Center was revised down from 1,600,268 gsf to 1,480,268 gsf to allow for the allocation of 120,000 gsf to the DAPER and Administrative district to accommodate the Knight Management Center and future anticipated projects, which is consistent with the 2000 GUP.

Table 1 lists the development districts, the 2000 GUP allocation of building area for each district, and the amount of academic/academic support square footage that received ASA or building permit approval in each district during this reporting period. The academic/academic support projects that do not affect the GUP building area cap are not shown in Table 1. See Section IV, Project Summaries, for additional information on projects that received ASA approval during the AR 17 reporting period.

TABLE 1
ANNUAL REPORT 17
DISTRIBUTION OF GUP-ALLOWED ACADEMIC AND ACADEMIC SUPPORT DEVELOPMENT[1]

Development District	2000 GUP Building Area Distribution (gsf)	GUP Building Area Distribution at the end of AR 17[1]	ASA Approved Space in AR 17 (sq. ft.)	Building Permit Approved Space in AR 17[2] (sq. ft.)	Previous ARs Cumulative Building Permit Approvals (sq. ft.)	Cumulative Total Building Permits Approved[3] (sq. ft.)	GUP Balance Remaining (sq. ft.)
Campus Center	1,605,000	1,389,337	34,959	206,383	985,024	1,191,407	197,930
DAPER & Administrative	250,000	370,000	(20,290)	(9,345)	363,173	353,828	16,172
East Campus	110,000	92,100	10,945	0	(38,112)	(38,112)	130,212
Quarry	50,000	50,000	0	0	0	0	50,000
Lathrop	20,000	20,000	0	0	0	0	20,000
West Campus	0	17,341	1,263	1,263	16,078	17,341	0
Foothills	0	4,732	0	0	3,192	3,192	1,540
Lagunita	0	91,490	18,295	16,746	73,195	89,941	1,549
Arboretum	0	0	0	0	0	0	0
San Juan	0	0	0	0	0	0	0
Total	**2,035,000**	**2,035,000**	**45,172**	**215,047**	**1,402,550**	**1,617,597**	**417,403**

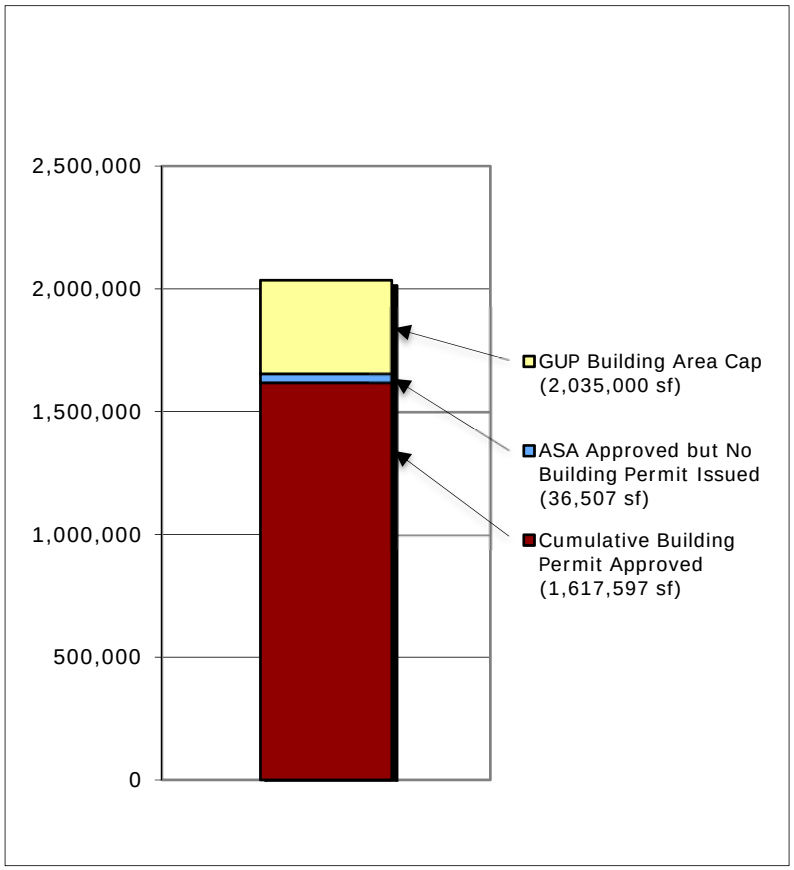
1. 2000 GUP Conditions E.2, 3, and 4 allow for deviations from the building area cap for each district. Any proposed increase in development in a district will be accompanied by an identified corresponding proposed decrease equivalent in building area in one or more of the other districts so that the overall campus-wide GUP building area cap is not exceeded. A cumulative maximum of 15,000 square feet of building area may be located in the Foothills District in a manner consistent with the General Plan and zoning. This amount may not be increased. Redistribution occurred in AR 8, AR 9, AR 11, AR 13, AR 14, and AR 17.
2. Square footage is counted against the GUP building area cap in the reporting year in which the building permits are approved.
3. Cumulative totals include adjusted results from the current and previous annual reports. Also see Appendix C and/or previous annual reports for more detailed background on these cumulative totals.

During the AR 17 reporting period, 9 projects received ASA and 1 project received ASX approval. In addition, the County also processed 1 project modification.

Figure 2 illustrates the cumulative status of building-permit-approved square footage for academic/academic support facilities, including the ASA approved square footage counted during the reporting period, as also shown in Table 1. In addition, it illustrates the remaining allowable square footage for development under the 2000 GUP.

Figure 2 illustrates the cumulative status of development that counts toward the GUP building area cap. The square footage of building permit approvals is cumulative. In contrast, ASA approved square footage is only shown for projects that received ASA and ASX (small project) approval during the current reporting period.

FIGURE 2: CUMULATIVE DEVELOPMENT ACTIVITY 12/12/00 - 8/31/17

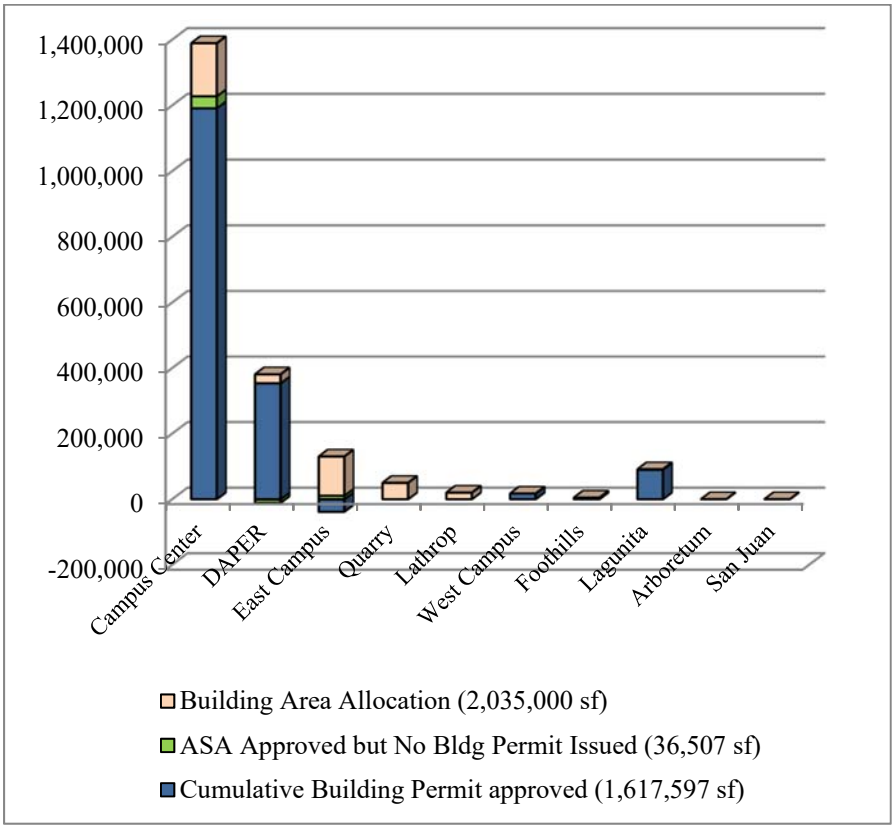


The Stanford Community Plan and GUP Condition E.5 required that a Sustainable Development Study (SDS) be completed and approved prior to acceptance of applications for the second 50% of the academic development allowed under the 2000 GUP. The SDS was presented to the Stanford Community Resource Group (CRG) on November 13, 2008 and to the Planning Commission on November 20, 2008, and was approved by the Board of Supervisors on April 7, 2009. See Appendix E for a Summary of Stanford's Sustainability Activities during this reporting period.

Figure 3, below, based on data in Table 1 and Figure 2, illustrates the 2000 GUP distribution of academic/academic support square footage throughout the 10 development districts, and the academic/ academic support square footage authorized by building permits or received approval by the ASA committee during the current reporting period. Anticipated projects or projects in the approval process for Annual Report 17 reporting period are noted in Section V, Table 6.

FIGURE 3: DISTRIBUTION OF ACADEMIC DEVELOPMENT

A map of Stanford University's Development District is provided in Map 2 in Appendix A. The distribution of GUP-allowed academic and academic support development is detailed in Table 1.



Other Space Caps

Remaining 1989 GUP Approved Square Footage

In addition to providing a 2,035,000 sq. ft. academic/academic support building area, the 2000 GUP preserved the remaining 92,229 gsf authorized but undeveloped under the 1989 GUP. The remaining 1989 GUP approved square footage was consumed during the Annual Report 5 reporting period.

Temporary Surge Space

The 2000 GUP (Condition A.2.c) allows Stanford University to install up to 50,000 sq. ft. as surge space during construction. Surge space is typically provided by installing modular buildings for a limited time. During this reporting period, the 1215 Welch Rd Modulars was approved for future demolition.

Childcare and Community Centers

The 2000 GUP (Condition A.2.c) allows up to 40,000 sq. ft. of building area for the purpose of new childcare or community centers, in addition to the academic/academic support building area. As indicated in Table 2, a total of 3,638 gsf remains available. The CCSC Childcare Center was approved to use 1,152 gsf from this space category, and is awaiting building permits.

TABLE 2
ANNUAL REPORT 17
OTHER SPACE CAPS - PROJECT SUMMARY

Non-Building Cap Category	Maximum Allowable Square Footage	ASA Approved (sq. ft.)	Building Permit (sq. ft.)	Cumulative Building Permits Approved (sq. ft.) from AR1-AR16	Cumulative Total Building Permits Approved (sq. ft.) from AR1-AR17	Balance Remaining (sq. ft.)
Remaining 1989 GUP Square Footage	92,229	0	0	92,229	92,229	0
Temporary Surge Space	50,000	(4,030)	(4,030)	17,174	13,144	36,856
Childcare/ Community Center	40,000	1,152	0	36,362	36,362	3,638

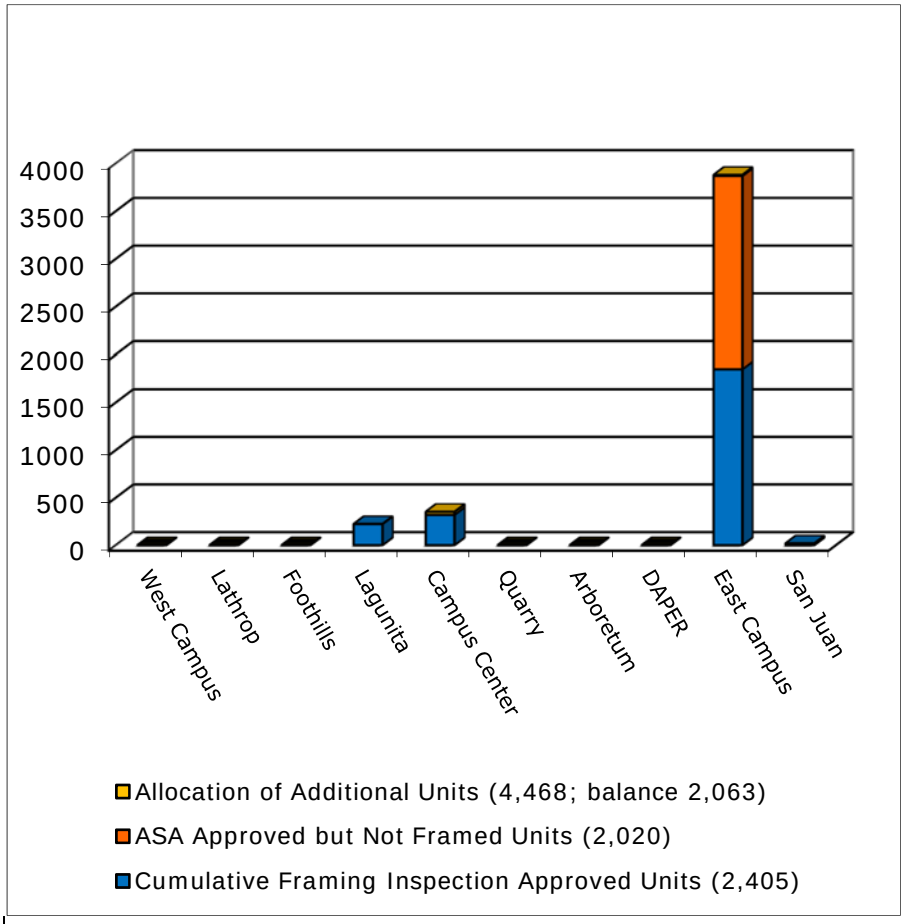
Housing

The 2000 GUP allows for the construction of 3,018 net new housing units on campus, with allocations for faculty and staff, graduate and undergraduate students, and postdoctoral and medical students. In FY 16, Stanford was approved an additional allocation of 1,450 housing units, for a total allocation of 4,468 housing units, as shown in Table 3. The GUP identified potential housing sites for students, staff and faculty (Map 3, Appendix A). As with academic/academic support building space, the housing units must be distributed among the 10 development districts (see Table 3).

Housing may also be developed on sites other than those shown on Map 3. The estimated distribution of the type and location of housing among development districts may deviate from the locations described in the 2000 GUP pursuant to Conditions F.2, F.3, and F.4. As explained under Condition A (A.1.c, A.1.d, and A.3.b), the square footage of housing units constructed is tracked but does not count toward the 2000 GUP building area cap (see Table C-2, Appendix C).

During the AR 17 reporting period, 1 net new housing unit was approved and constructed, and 2,020 net new graduate student housing units were approved. For purposes of the housing linkage requirement, as provided in GUP Condition F.8, the housing requirement is counted at the time of the framing inspection. The Planning Commission also approved a 1,450 unit increase to the housing allocation, pursuant to GUP Condition F.7.

FIGURE 4: DISTRIBUTION OF RESIDENTIAL DEVELOPMENT



There is currently a total allocation of 4,468 housing units for the campus. As illustrated in Figure 4, the cumulative total number of approved units under the 2000 GUP allocation, which have completed framing inspection, is 2,405 units. A total of 2,063 housing units remain available under the housing allowance.

TABLE 3
ANNUAL REPORT 17
DISTRIBUTION OF RESIDENTIAL DEVELOPMENT

Development District[1]	Allowable 2000 GUP Net Additional Units	ASA Approved Units but Not Yet Framed	Past Cumulative[2]	Final Framing Inspection Approved Units	Cumulative
West Campus	0	0	0	0	0
Lathrop	0	0	0	0	0
Foothills	0	0	0	0	0
Lagunita **- Driving Range** **- Searsville Block** **- Mayfield/Row**	222	0	221	1	222
Campus Center	350	0	318	0	318
Quarry **- Quarry/Arboretum** **- Quarry/El Camino**	0	0	0	0	0
Arboretum	0	0	0	0	0
DAPER & Administrative	0	0	0	0	0
East Campus **- Manzanita** **- Escondido Village** **- Quillen** **- GSB Residences**	3,878	2,020	1,847	0	1,847
San Juan **- Lower Frenchman's** **- Gerona** **- Mayfield**	18	0	18	0	18
Total	**4,468 Allowed[1, 3, 4]**	**2,020**	**2,404[5]**	**1**	**2,405**

1. Housing may be developed on other sites and development may vary from the estimated distribution with regard to either the type (student, postdoctoral, or faculty/staff) or amount of housing on the site (2000 GUP Conditions F.2, F.3, and F.4). Redistribution was reported in AR 6, AR 13, AR 14, and AR 16.
2. Cumulative totals include results from previous annual reports. See Appendix C and/or previous annual reports for more detailed background on these cumulative totals.
3. A GUP amendment was approved on May 5, 2015 to revise the remaining housing allocations by housing types, to provide flexibility in meeting campus housing needs. All remaining unused housing allowances consisting of 228 faculty/staff beds, 3 graduate student bends, and 350 post-doc/medical resident beds, were approved to be usable for any type of university affiliate housing.
4. 1,450 additional housing units were approved on March 24, 2016 pursuant to GUP Condition F.7, in preparation for the Escondido Village Graduate Residences (EVGR) project. At the same time, 566 housing units from various Development Districts were reallocated to the East Campus Development District (194 from Lagunita, 1 from Campus Center, 350 from Quarry, and 21 from San Juan). As of the end of FY 16, the ASA for the EVGR project had not yet been approved.
5. The Kingscote Gardens Renovation was approved on March 30, 2016, removing 33 units from the housing inventory for conversion to academic offices.

Parking

The 2000 GUP allows for 2,300 net new parking spaces above the campus base of 19,351 spaces. As explained in Condition A.3.c, the building area of parking structures does not count towards the GUP academic/academic support building area cap. As with academic/academic support building area square footage and housing, the allowed parking spaces have been distributed among the development districts (Table 4 and Figure 5).

FIGURE 5: DISTRIBUTION OF PARKING SPACES

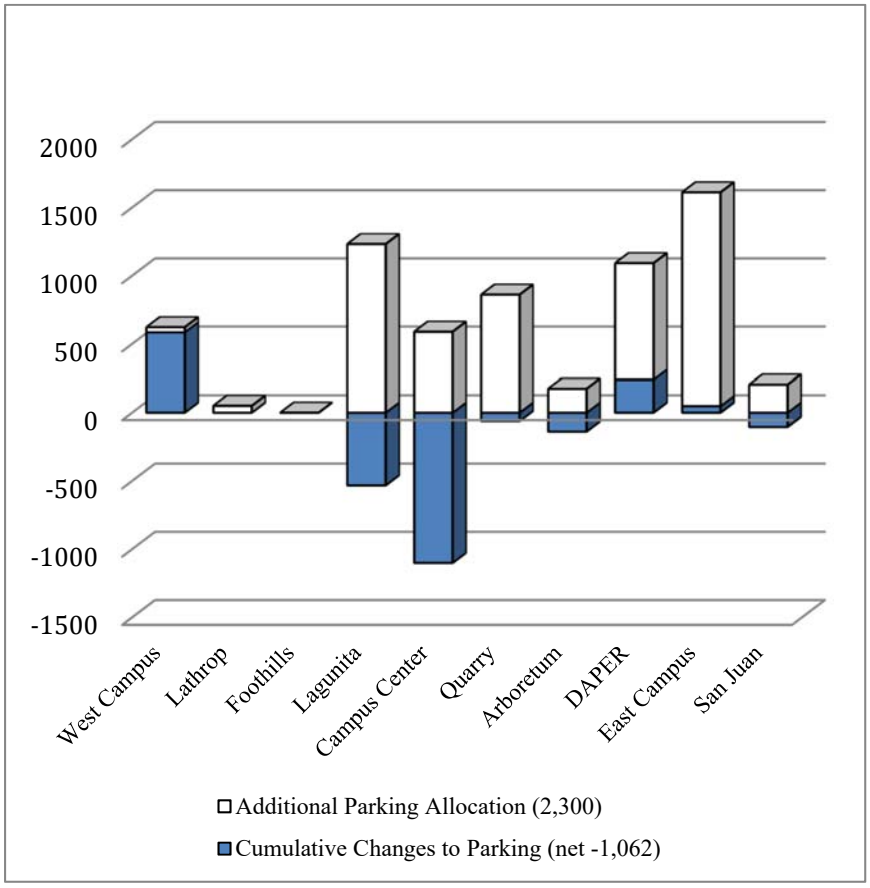


Table 4 presents the changes in parking spaces during the current reporting period, and cumulative increases and decreases in parking spaces on the campus during the AR 1 through AR 17 reporting periods.

During the AR 17 reporting period, there was a net increase of 177 parking spaces on campus. The cumulative change in the parking inventory is a net decrease of 1,062 parking spaces under the 2000 GUP.

TABLE 4
ANNUAL REPORT 17
DISTRIBUTION OF PARKING

Development District	Base Parking GUP EIR	2000 GUP Allowed Change in Parking Spaces	Changes to Parking Inventory				Unused 2000 GUP Allocation
			AR 17 Contribution	Previous AR 1-16Contribution	Cumulative (AR 1 Through Current AR 17)	EIR Base and Cumulative (Current Parking Capacity)	
West Campus	191	622	0	585	585	776	37
Lathrop	0	50	0	0	0	0	50
Foothills	0	0	0	0	0	0	0
Lagunita	1,745	700	-92	-440	-532	1,213	1232
Campus Center	8,743	(511)	1044	-2,144	-1100	7,643	589
Quarry	1,058	800	-3	-58	-61	997	861
Arboretum	134	36	0	-138	-138	(4)	174
DAPER & Administrative	2,209	1,092	-2	242	240	2,449	852
East Campus[1]	4,731	1,611	-769	817	48	4,779	1563
San Juan	540	100	-1	-103	-104	436	204
Campus Wide Summary	19,351	2,300[2]	177	-1,239	-1062	18,289	3,362[2]

1. Parking allocation in East Campus increased from 900 to 1,611 spaces and decreased in Campus Center from 200 to negative 511 with the approval of Parking Structure 6 (Munger).

2. According to 2000 GUP Condition H.1, the total net additional parking on campus shall not exceed 2,300 spaces, except for parking provided with any housing that is constructed in excess of 3,018 planned housing units. Also, per GUP Condition H.1, parking constructed as part of and for new faculty/staff housing in areas designated Campus Residential-Low Density and Campus Residential-Medium Density will not count toward the limit for each development district. In order to allow flexibility in the distribution of parking, the GUP also sets an upper limit for new parking in each development district. Some districts will ultimately build less than their GUP allocations. Thus, the sum of unused district allocations is more than the remaining 2000 GUP allocation, which is the campus-wide maximum number of parking spaces that will be built under this GUP.

3. Parking allocation for Arboretum increased from zero to 36 spaces and decreased in DAPER from 1,700 to 1,664 when on-street, non-striped parallel parking was converted to striped, angled parking along the west side of the street, and two-way traffic was converted to one-way northbound traffic in association with the Galvez Parking Lot project.

4. Parking allocation for West Campus increased from 50 to 622 and decreased in DAPER from 1,664 to 1,092 when 611 new surface parking stalls were added to the Searsville Parking lot and 19 on-street parking spaces were removed in West Campus.

5. In FY 16, Stanford conducted a comprehensive quality review of the parking inventory which resulted in the following corrections:

   (i) 61 spaces were removed from the Quarry District inventory (Lot 1-A and Parking Structure 9 next to Hoover Pavilion) as these are in Palo Alto, but entered into the inventory in AR 14 and AR 15 by mistake;

   (ii) 28 faculty/staff-only spaces in the San Juan District within R1S and R3S zoning were removed from the inventory, consistent with the treatment of parking for the faculty subdivision per GUP Condition H.1; and

   (iii) 108 bus storage and staging spaces were removed from the inventory, including 64 spaces at L-20 for storage of Marguerite shuttles in the Campus Center District; 38 spaces at Oak Road for staging of Marguerite, tour bus, charter bus, and authorized oversize vehicle and equipment in the Campus Center District; and 6 spaces for tour bus staging in the Arboretum District. Bus storage and staging areas are not part of the parking inventory that can be used by commuters, campus residents, or the general public, but rather serve to facilitate a mode of transportation that reduces vehicular trips to and from campus.

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III. Overview of Monitoring During Seventeenth Year

This section provides a summary of activities conducted during the AR 17 reporting period in compliance with 2000 GUP conditions. For a complete discussion of compliance with each 2000 GUP condition, please see Appendix B.

GUP Condition A: Building Area

Section II of this Annual Report provides statistics and distribution of building area by district. It also provides accounting of the 2000 GUP space expenditure for those projects that received building permits during the AR 17 reporting period. Descriptions and illustrations of projects that received ASA and ASX during the AR 17 reporting period are provided in Section IV.

During the AR 16 reporting period, September 1, 2016 through August 31, 2017:

- Stanford did not exceed the GUP building area cap, or the GUP caps for new housing and parking.
- Stanford also remained within the other space caps established under the GUP.

GUP Condition B: Framework

A total of eight projects received ASA approval or ASA Small Project Exemption (ASX) during the AR 17 reporting period. All were determined to be consistent with General Plan land use designations and zoning. Stanford University paid all costs associated with the work conducted by the County Planning Office in relation to the 2000 GUP (staff time, consultant fees, and the direct costs associated with report production and distribution) in a timely manner.

GUP Condition C: Monitoring, Reporting, and Implementation

The County Planning Office gathered comprehensive data related to Stanford projects, compiled the information, produced and published the AR 17 pursuant to the 2000 GUP. Stanford University provides funding for all aspects of the Annual Report preparation, and necessary information included in the report.

The Draft AR 17 will be presented to the Community Resource Group on April 12, 2018 and the final report will be presented to the Planning Commission at the June 2018 public hearing.

GUP Condition D: Permitting and Environmental Review

During the AR 17 reporting period, Stanford received ASA or ASA Small Project Exemption (ASX) for eight projects. All of these projects were determined to be consistent with the General Plan land use designations and zoning requirements, and found to be adequately analyzed in the CP/GUP EIR. See Section II of this Annual Report for the status of each project.

When violations of codes, ordinances or other requirements occur, they are addressed through appropriate County procedures. It is beyond the scope of this Annual Report to document every minor violation of County ordinances or other requirements that occur on Stanford University land. As of this Annual Report, there has been no action that would require the County Planning Commission to consider or determine Stanford to be in non-compliance with any GUP condition or mitigation requirement. Stanford University remains in compliance with the GUP.

The zoning enforcement office and building inspection office report that Stanford University is in general compliance with other County requirements.

GUP Condition E: Academic Building Area Review

Stanford is in compliance with GUP Condition E.5. See Appendices B and E for more detail. Appendix E is provided electronically at http://sustainability-year-in-review.stanford.edu/2017/.

GUP Condition F: Housing

During this reporting period, Stanford framed one housing unit at the Lagunita-Eucalipto residence hall. The total number of campus housing units constructed under the 2000 GUP is 2,405.

Currently, Stanford's capacity for providing student-housing units remains equivalent to the capacity identified by Stanford University at the time of initial occupancy. Stanford's housing need is subject to fluctuation during any given year. Accordingly, Stanford University may redistribute the student population among existing housing facilities in any given year, based on current population and programmatic needs. The County will, as needed, reassess housing availability status with appropriate Stanford University staff. If Stanford University should ever apply for a development permit that would change the number of beds available to students, that action and the change in beds would be reported in the Annual Report.

The 2000 GUP requires Stanford to build additional housing units commensurate with the development of academic/academic support

facilities. The threshold at 1,000,000 gsf of academic or academic support area requires a minimum of 1,210 housing units. Stanford University has constructed 2,404 units and is therefore, in compliance with this requirement.

Stanford University has complied with County requests for affordable housing in-lieu payments after building permit issuance and before occupancy. As of August 2017, the affordable housing fees were assessed at the rate of $20.37 per square foot of net new academic or academic support space approved under the building permit. Stanford has made affordable housing fee payments to date (as of August 2017) totaling $26,118,671.11. Five affordable housing projects have been funded so far with $13,345,811. The five projects built within the 6 mile radius from Stanford Campus boundary have provided 286 affordable housing units, with 137 units restricted to very low income to extremely low income families. Maybell Orchard proposed by Palo Alto Housing Corporation, originally planned to provide 50 units, was cancelled in November 2013. The fund balance as of August 2017 was $12,772,860.11 which has been set aside by the Board towards the Buena Vista Mobile Home Park project in Palo Alto.

The GSB Residences and New Residences at Lagunita Court were framed within this reporting period.

GUP Condition G: Transportation

A baseline traffic count to determine the existing level of commute trips entering the campus during the morning peak commute period and leaving the campus during the evening peak commute period was established in 2001. Data collection during the FY 17 monitoring period involved 6 weeks in Spring 2017 and 2 weeks in Fall 2017 to monitor Stanford's compliance with the "no-net-new commute trip" standard. The Stanford University Traffic Monitoring Report 2017 is available for review at the County and is also available on the County website, (https://www.sccgov.org/sites/dpd/Programs/Stanford/Pages/Archive.aspx). Results of annual traffic monitoring are summarized in Appendix D of this document.

The Annual Report normally reports on activity between September 1 and August 31. However, the annual Traffic Monitoring Reporting period is the same as the baseline, 6 weeks in the Spring and 2 weeks in the Fall.

The 2017 Monitoring Report concluded that the adjusted morning (AM) inbound count totaled 3,202 vehicles. This number is 237 vehicles below the baseline, the 90% confidence interval, and does not represent a significant AM inbound traffic increase. The

afternoon (PM) outbound count totaled 3,324 vehicles. This number is also below the 90% confidence interval by 231 vehicles and below the one-percent established trigger by 267 vehicles. Trip credits submitted by Stanford were not applied as the vehicle counts were below the thresholds in this reporting period. Therefore no additional mitigation is required.

The 2017 traffic monitoring cordon locations used for traffic monitoring are shown on Map A-4, Appendix A. Data and analysis of these counts, reported in March 2017, are provided in Appendix D of this annual report.

GUP Condition H: Parking

During AR 17 reporting period, all parking projects were in compliance with GUP Condition H. Detailed information may be found in Section II, Table 4 and Appendix B, Appendix C (Map C-3) and Figure 5. As indicated in this Annual Report, several parking projects were implemented. The cumulative change in the parking inventory remains significantly under the cap set for the 2000 GUP, which allowed a total increase campus-wide of 2,300 spaces. With cumulative reductions, the remaining parking capacity that could be installed under the 2000 GUP parking cap is 3,362 spaces.

GUP Condition I: Parks and Recreation Facilities

Construction of C2/Arastradero Trail: Construction and trail improvements were completed and the trail was dedicated in November 2013. The trail links to the Pearson-Arastradero Preserve.

San Mateo County and Stanford did not reach agreement for the San Mateo C1 segment and in February 2012, Stanford paid the County approximately $10.3 million. In August 2012, the County issued a request for applications for projects that would serve as alternative mitigation measures to address the loss of recreational facilities on the Stanford campus. The County received 15 project applications from six local agencies. The Board of Supervisors declared its intent to fund six of the 15 projects, including $4.5 million to Stanford to construct a perimeter trail along El Camino Real and Stanford Avenue frontages. The Board also directed County Administration to negotiate projects agreements for the selected projects and submit approval to the Board consistent with the requirements of CEQA. The Stanford Perimeter Trail was approved in December 2014 and completed and open to the public in April 2016.

GUP Condition J: California Tiger Salamander

The final Stanford University Habitat Conservation Plan (HCP) and Final Environmental Impact Statement (EIS) were published on November 23, 2012 and the HCP was revised in March 2013. On August 13, 2013, the County Board of Supervisors acknowledged the determination that the approved HCP provides equal habitat value and protection for the California Tiger Salamander (CTS). Therefore, the HCP supersedes all conditions in the GUP that address the CTS, implementing Condition J.9 of the GUP.

GUP Condition K: Biological Resources

Four projects that began construction during the current reporting period required pre-construction surveys for breeding raptors and migratory birds. For more information, see Appendix B, Condition K.2. No special status plant assessments was conducted on campus during this reporting period.

GUP Condition L: Visual Resources

Eight projects approved during the reporting period included exterior lighting. The ASA conditions of approval required the lighting impacts to be mitigated and limited to the site to be in keeping with the Visual Resources conditions.

GUP Condition M: Hazardous Materials

During the AR 17 reporting period, no new buildings will include hazardous materials that are regulated by the California Accidental Release Prevention Law.

GUP Condition N: Geology and Hydrology

During the AR 17 reporting period, all projects were in compliance with GUP Condition N. See Appendix B, Condition N for more details.

GUP Condition O: Cultural Resources

During the AR 17 reporting period, all projects were in compliance with GUP Condition O. See Appendix B, Condition O for more details.

GUP Condition P: Utilities and Public Services

During the AR 17 reporting period, all projects were in compliance with GUP Condition P. See Appendix B, Condition P for more detail.

GUP Condition Q: Air Quality

All approved projects were required to comply with BAAQMD's permitting, control measures and recommendations as appropriate. See Appendix B, Condition Q for more detail.

GUP Condition R: Noise

Stanford complied with the requirements of the County Noise Ordinance on individual construction projects. Two events per calendar year are allowed by the GUP, and additional fireworks events were allowed under separate permits. Stanford continues to meet the GUP Condition by operating the noise hotline at (650) 724-4900, which is intended to log complaints related to outdoor special events and high impact events on campus. The University reports that 13 complaints were received during FY 17, all of which were from campus residents about noises such as party noise and loud music, within residential areas on-campus.

See Appendix B, Condition R for more detail.

GUP Condition S: Additional GUP Conditions

This condition was a requirement for Stanford University to agree to the GUP conditions of approval within 60 days. This condition was fulfilled in Annual Report 1.

Project Summaries

This section presents brief project summaries of all major projects that received ASA approval or exemption and/or a building permit or demolition permit during the reporting period. A list of projects that received approval is presented at the end of this section. Figure 6 shows the locations of the major projects.

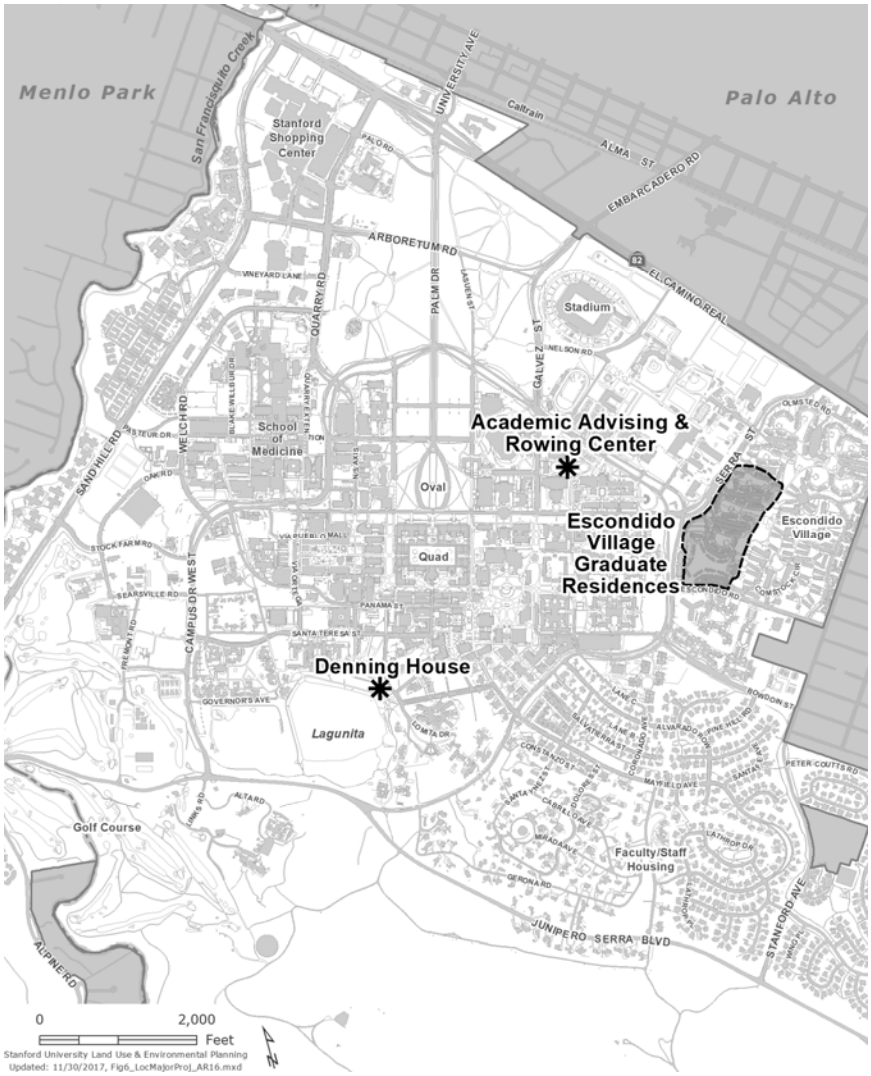


FIGURE 6: LOCATION OF MAJOR ANNUAL REPORT 17 PROJECTS

File No. 10915: Escondido Village Graduate Residences

ASA Application Submitted:	06/30/2016
ASA Approved:	Approved 9/29/16, upheld 11/17/2016
Status as of 08/31/17:	Under construction. Expected completion in Fall 2020.
Project Description:	The Escondido Village Graduate Residences (EVGR) project will demolish 29 buildings with 414 beds, and construct 4 buildings with 2,434 new beds of graduate student housing, ranging in height from 6 to 10 stories, for a net add of 2,020 beds. The project includes a two-story pavilion, a market, café, and common amenities such as social and community gathering rooms, activity rooms, computer clusters and laundry facilities. Together with the Manzanita Garage project, there will be a net add of 750 parking spaces in the East Campus Development District. 283 trees will be removed and 633 trees will be replanted. Estimated grading quantities are approximately 109,000 cubic yards of cut and 27,000 cubic yards of fill. This project is residential; therefore the proposed housing units count against the 2000 GUP housing unit allocation. In FY 2016, an application for 1,450 additional housing units beyond the initial 3,018 unit GUP housing authorization, pursuant to GUP Condition F.7, and the reallocation of 566 housing units from Lagunita, Campus, Center, Quarry, and San Juan Development Districts to the East Campus Development District, was approved by the Planning Commission.
Development District:	East Campus
Type of Project:	Academic

Applicable GUP Conditions:	Stanford is in compliance with Mitigation Monitoring and Reporting Program requirements and GUP Conditions for this project. Detailed summaries of project-related conditions are maintained in County project files.

File No. 10965: Denning House

ASA Application Submitted:	11/08/2016
ASA Approved:	02/02/2017
Status as of 08/31/17:	Under construction. Expected completion in Fall 2018.
Project Description:	Denning House will serve as the convening hub for Knight-Hennessy Scholars, featuring small-group spaces, a lounge, classrooms, meeting, lecture and discussion rooms, offices, and a dining space for up to 100 people. The building site is between Lomita Drive and Roble Hall, next to the Lagunita Reservoir. 4 trees will be removed, 1 tree will be relocated, and 15 trees will be planted. Estimated grading quantities are approximately 377 cubic yards of cut and 346 cubic yards of fill. This project is 16,470 academic sf, and required a redistribution of 16,490 sf from the East Campus District. The building space counts against the 2000 GUP building area cap.
Development District:	Lagunita
Type of Project:	Academic
	   
Applicable GUP Conditions:	Stanford is in compliance with Mitigation Monitoring and Reporting Program requirements and GUP Conditions for this project. Detailed summaries of project-related conditions are maintained in County project files.

File No. 3497: Academic Advising and Rowing Center (Arrillaga Hall)

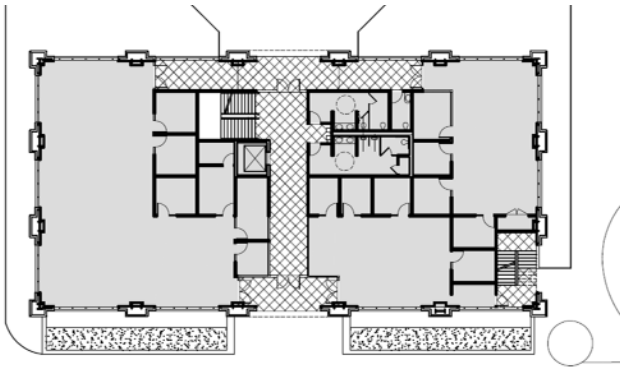
ASA Application Submitted:	10/20/2016, resubmitted 1/19/2017
ASA Approved:	03/02/2017
Status as of 08/31/17:	Awaiting Building Permit
Project Description:	The Academic Advising and Rowing Center (AARC) is a new three-story building for academic advising, ergonomic rowing exercise, the campus wellness program, and offices for coaches. 2 trees will be removed, 2 trees will be relocated, and 6 trees will be replanted. Estimated grading quantities are approximately 4,180 cubic yards of cut and 175 cubic yards of fill. This project totals 23,714 academic sf. The building space counts against the 2000 GUP building area cap.
Development District:	Campus Center
Type of Project:	Academic
	
Applicable GUP Conditions:	Stanford is in compliance with Mitigation Monitoring and Reporting Program requirements and GUP Conditions for this project. Detailed summaries of project-related conditions are maintained in County project files.

TABLE 5
ANNUAL REPORT 17
DEVELOPMENT PROJECTS RECEIVING ASA OR OTHER APPROVAL

PC/ File #	Project Name	Development District	ASA gross sq. ft.	Demolition sq. ft.	Bldg. Permit sq. ft.	Development Status
Projects that affect GUP gsf						
10612	Golf - 10th Tee Improvements	Foothills	0		0	Completed
5622	Golf Learning Center	Lagunita	2,035	(1,740)	295	Completed
3947	Addition to the Ford Center	Campus Center	3,310		Not yet	Project on hold
10723	Demolition of Cummings Art Center and Construction of Hoover Conference Center & Office Building	Campus Center	50,340	(51,024)	(684)	Completed
10804	Regional Loading Dock Expansion (loading dock and café)	Campus Center	2,284	(20,628)	(18,344)	Under Construction
10784	ChEM-H & SNI	Campus Center	210,953		210,946	Under Construction
10832	Kingscote Gardens Renovation	Campus Center	20,298 GUP gsf	(20,298) housing gsf	20,298	Completed
10829	Bass Biology Building	Campus Center	120,337		120,337	Under Construction
10829	Demolition of Herrin Hall	Campus Center		(35,944)		To be demolished in 2018
10829	Demolition of Herrin Labs	Campus Center		(78,047)		To be demolished in 2018
59116	Demolition of Laurel	Campus Center		(2,644)		Demolition permit received; to be demolished in 2018
59116	Demolition of Acacia	Campus Center		(2,178)		Demolition permit received; to be demolished in 2018
45043	Home of Champions	DAPER			2,440	Awaiting Building Permit
10520	Educational Farm Huffington Barn	West Campus	1,263		1,263	Under Construction

TABLE 5
ANNUAL REPORT 17
DEVELOPMENT PROJECTS RECEIVING ASA OR OTHER APPROVAL

PC/ File #	Project Name	Development District	ASA gross sq. ft.	Demolition sq. ft.	Bldg. Permit sq. ft.	Development Status
3497	Academic Advising and Rowing Center	Campus Center	23,714		Not yet	Awaiting Building Permit
Demolition Permit	Organic Chem demolition	Campus Center		(14,270)		Completed
10965	Denning House	Lagunita	18,000		16,470	Under Construction
10968	Frost Amphitheater renovations	Campus Center	11,210		9,707	Under Construction
10976	Environmental Health and Services Expansion	Campus Center	14,305		14,305	Awaiting Building Permit
Building Permit	Encina Commons	Campus Center			(4,121)	Awaiting Building Permit
11037	Center for Academic Medicine	Quarry	153,821		Not yet	Awaiting Planning Approval
Various demo permits	Bonair Huts for East Campus Utilities	DAPER		(11,785)		Completed
11076	Public Safety	DAPER	27,820	(2,729)		Awaiting Planning Approval
Projects that affect other gsf						
11042	CCSC Childcare	East Campus	No net new acad sf 1,152 childcare sf			Awaiting Building Permit
Demolition Permit	1215 Welch Rd Modulars (C, D, E) demolition	Campus Center		(4,030)		To be demolished in the future
Housing						
10541	Lasuen	San Juan	0		Not yet	Renovation deferred
10832	Kingscote Gardens Renovation	See project with same name under "Projects that affect GUP gsf"				
7165; 10915	Escondido Village Graduate Residences	East Campus	1,824,127 housing gsf	(168,920) housing gsf	1,779,440 housing gsf	Under Construction
BP 63066	Lagunita-Eucalipto	Lagunita	N/A		N/A	Completed

TABLE 5
ANNUAL REPORT 17
DEVELOPMENT PROJECTS RECEIVING ASA OR OTHER APPROVAL

PC/ File #	Project Name	Development District	ASA gross sq. ft.	Demolition sq. ft.	Bldg. Permit sq. ft.	Development Status
11069	Cabrillo-Dolores Faculty Housing	San Juan	23,448 housing gsf	(5,273) housing gsf		Awaiting Planning Approval
Site Projects						
10572	Stanford Parking Structure 10 (PS-10)	Campus Center	N/A	N/A	N/A	Completed
10478	Lomita/Roth Parking Lot and Lomita Road	Campus Center	N/A	N/A	N/A	Completed
10835	Galvez Roundabout	Campus Center	N/A	N/A	N/A	Completed
10572	Via Ortega South	Campus Center/Lagunita	N/A	N/A	N/A	Completed
10893	DAPER Flag Pole Installations	DAPER	N/A	N/A	N/A	Approved
8972	Serra Roundabout	DAPER and East Campus	N/A	N/A	N/A	Awaiting Planning Approval for modification
10915	Manzanita Garage	East Campus	N/A	N/A	N/A	Awaiting Planning Approval

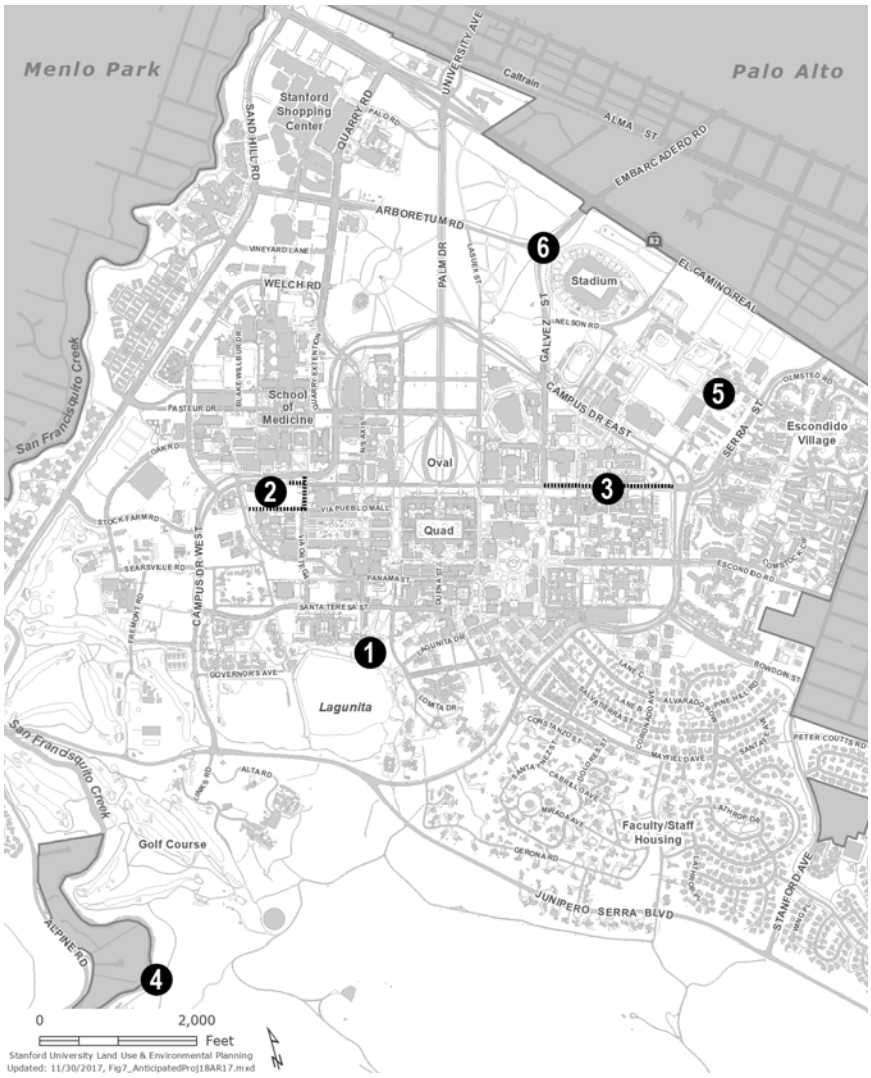


FIGURE 7: LOCATION OF ANTICIPATED PROJECTS

Map ID	Project
1	Demolition of Roble Hall Storage Shed
2	Via Ortega North
3	Serra Mall
4	Lagunita Diversion Dam Removal and Creek Restoration
5	Emergency Operations Center and Electronic Communications Hub
6	Galvez Arboretum Roundabout

V. Anticipated Future Development

TABLE 6
ANTICIPATED PROJECTS FOR ANNUAL REPORT 17

County File #	Project	Development District	ASA Application Submitted	Anticipated ASA Square Footage	Anticipated Housing	Anticipated Parking
ASA Applications Submitted During AR 17, No Approval as of August 31, 2017						
11037	Center for Academic Medicine (CAM)	Quarry	5/2/17	153,821	-	585
Building Permit	Encina Commons	Campus Center	6/29/17	(4,121)	-	-
11076	Department of Public Safety	DAPER	7/24/17	25,091	-	2
ASA Applications Anticipated for AR 18 Reporting Period						
PC 47447	Demolition of Roble Hall Storage Shed	Lagunita	Demo Permit submitted 9/7/17	-	(3,940)	-
-	Via Ortega North	Campus Center	-	-	-	(25)
-	Serra Mall	Campus Center	-	-	-	(22)
-	Lagunita Diversion Dam Removal and Creek Restoration	Foothills	-	-	-	-
-	Emergency Operations Center and Electronic Communications Hub	DAPER	7,429	-	-	(17)
-	Galvez Arboretum Roundabout	Campus Center	-	-	-	-

References

- Santa Clara County 2000 Stanford Community Plan/General Use Permit Environmental Impact Report. Prepared by Parsons.
- Stanford University Community Plan. Adopted by Santa Clara County Board of Supervisors December 12, 2000.
- Stanford University General Use Permit. Approved December 12, 2000.

County of Santa Clara Annual Report Preparer

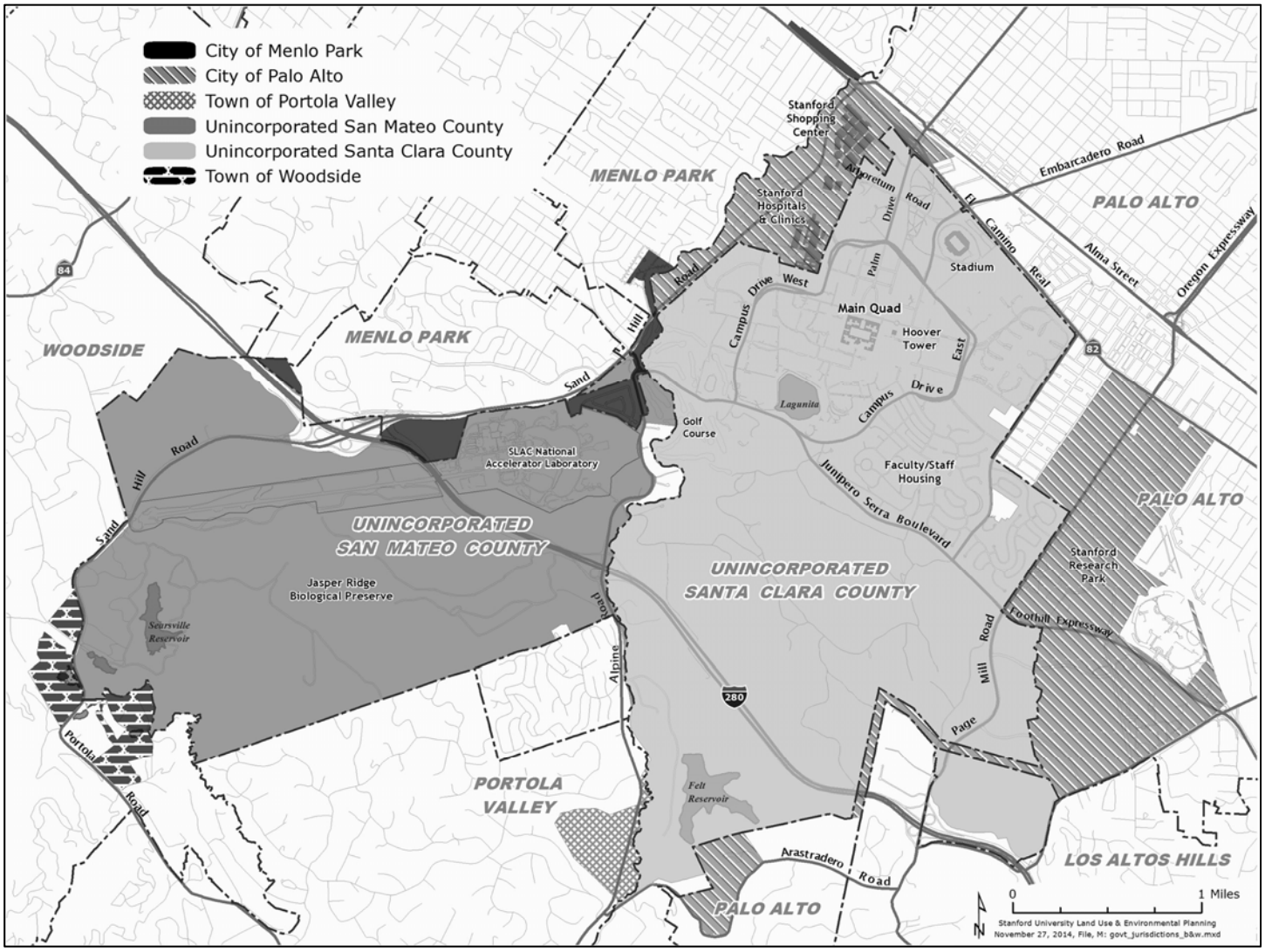
- Kavitha Kumar, Senior Planner (Project Manager: Stanford Environmental Mitigation Monitoring and Reporting Program), Santa Clara County Planning Office
(408) 299-5783/kavitha.kumar@pln.sccgov.org

Stanford University Data Providers

- Catherine Palter, Associate Vice President, Karen Hong, AICP, Senior Planner, and Joe Ryan, GIS Specialist, Land Use and Environmental Planning
- Brian Shaw, Director, and Brian Canada, Parking Operations Coordinator, Parking & Transportation Services
- Laura Goldstein, Director, Project Managers and staff, Department of Project Management
- Adam Porter, Civil Infrastructure Engineer, Utilities
- Project Management Resources, Residential and Dining Enterprises, Environmental Health & Safety Department, Facilities Operations - Utilities, University Architect/Campus Planning and Design

Appendix A
Reference Maps

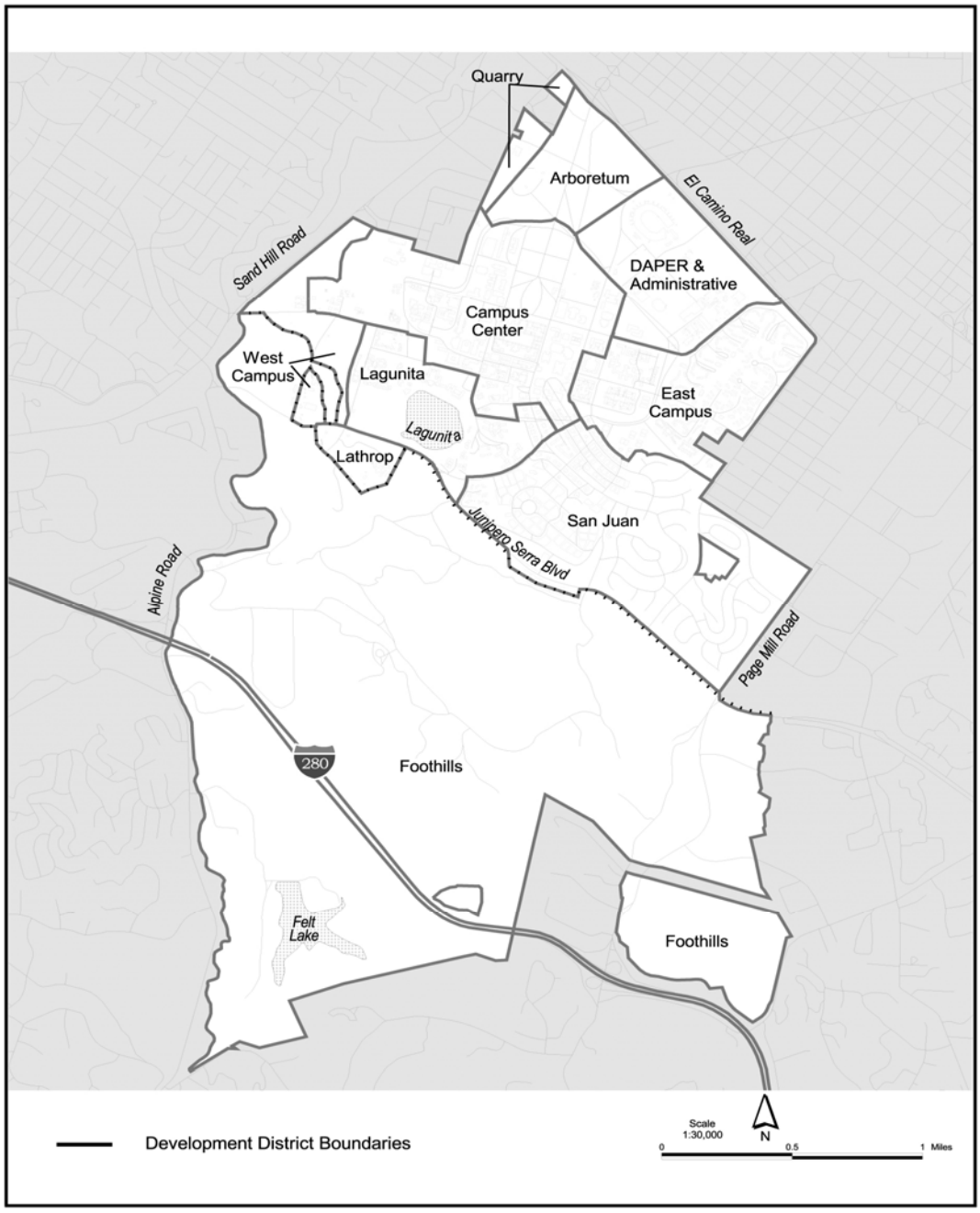
Appendix A
Reference Maps



Source: Stanford University 2014

MAP A-1
GOVERNMENTAL JURISDICTIONS ON STANFORD LANDS

Appendix A
Reference Maps

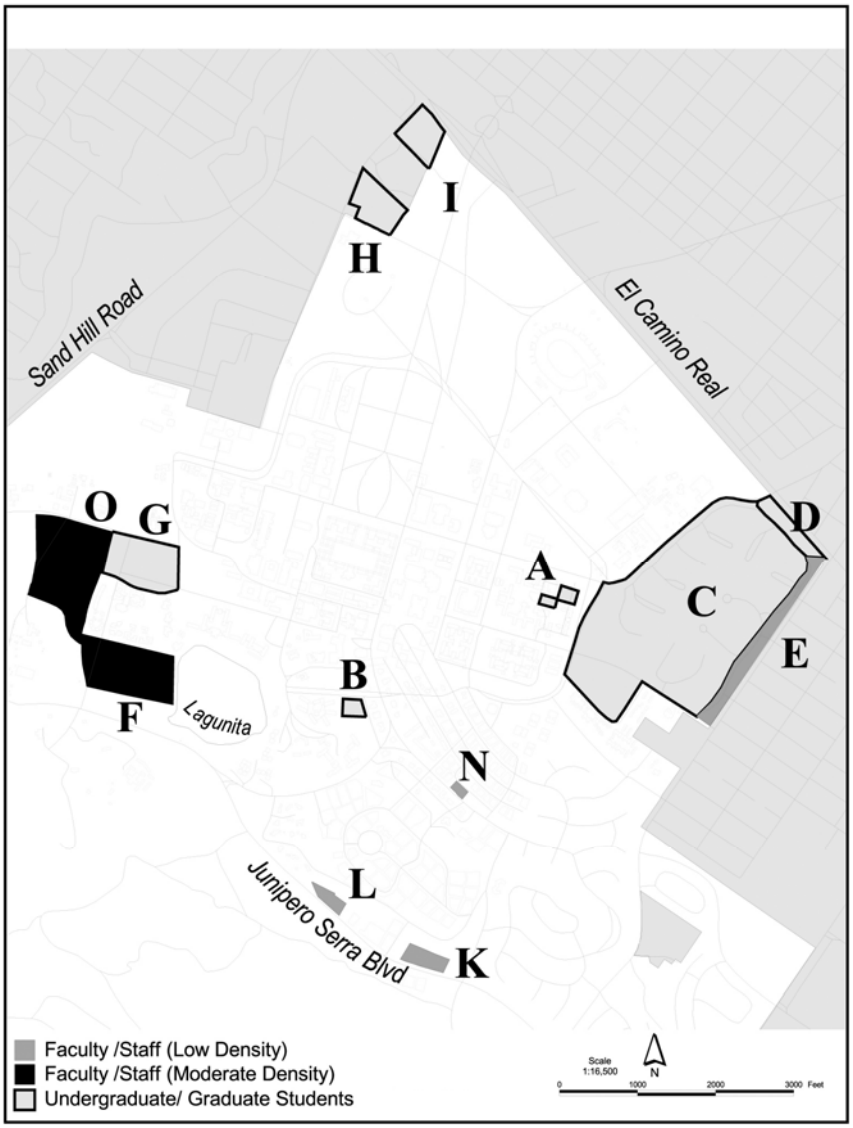


Source: Stanford University General Use Permit, December 2000

MAP A-2
STANFORD UNIVERSITY DEVELOPMENT DISTRICTS

Appendix A
Reference Maps

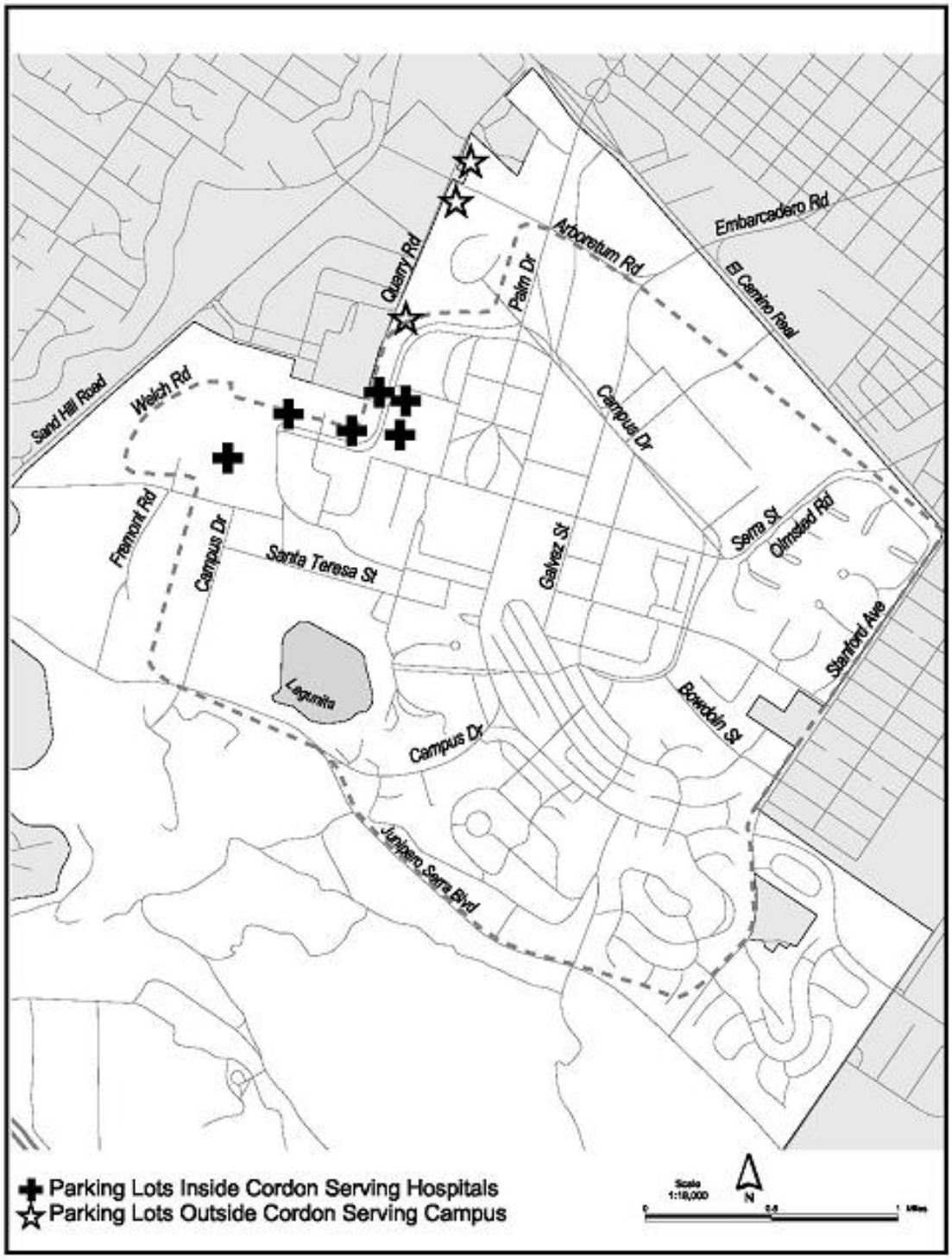
- ***A*** *Manzanita*
- ***B*** *Mayfield/Row*
- ***C*** *Escondido Village*
- ***D*** *Escondido Village*
- ***E*** *Escondido Village*
- ***F*** *Driving Range*
- ***G*** *Searsville Block*
- ***H*** *Quarry/Arboretum*
- ***I*** *Quarry/El Camino*
- ***K*** *Lower Frenchman's*
- ***L*** *Gerona*
- ***N*** *Mayfield*
- ***O*** *Stable Sites*



Source: Stanford University General Use Permit, December 2000

MAP A-3
POTENTIAL HOUSING SITES

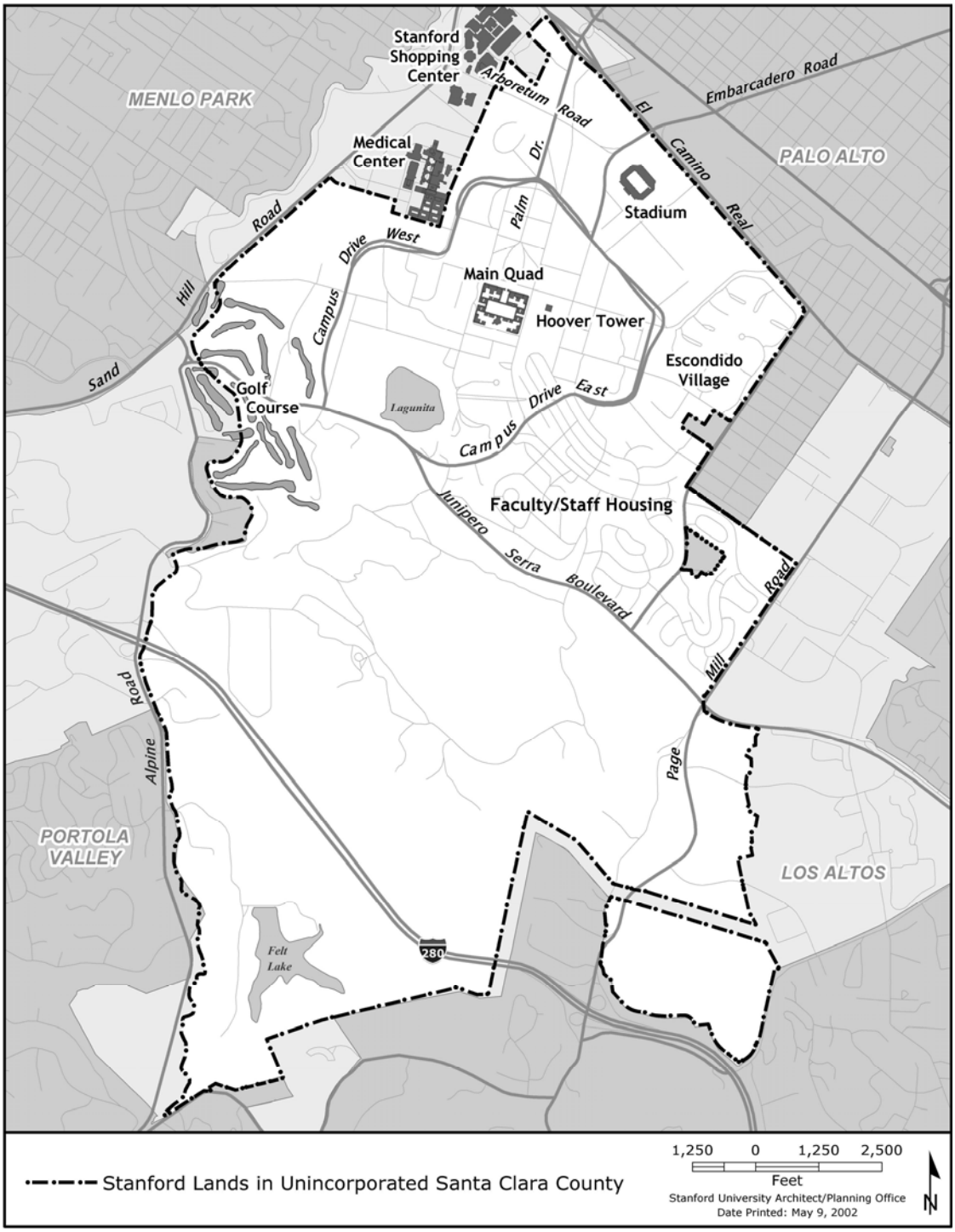
Appendix A
Reference Maps



Source: Stanford University General Use Permit, December 2000

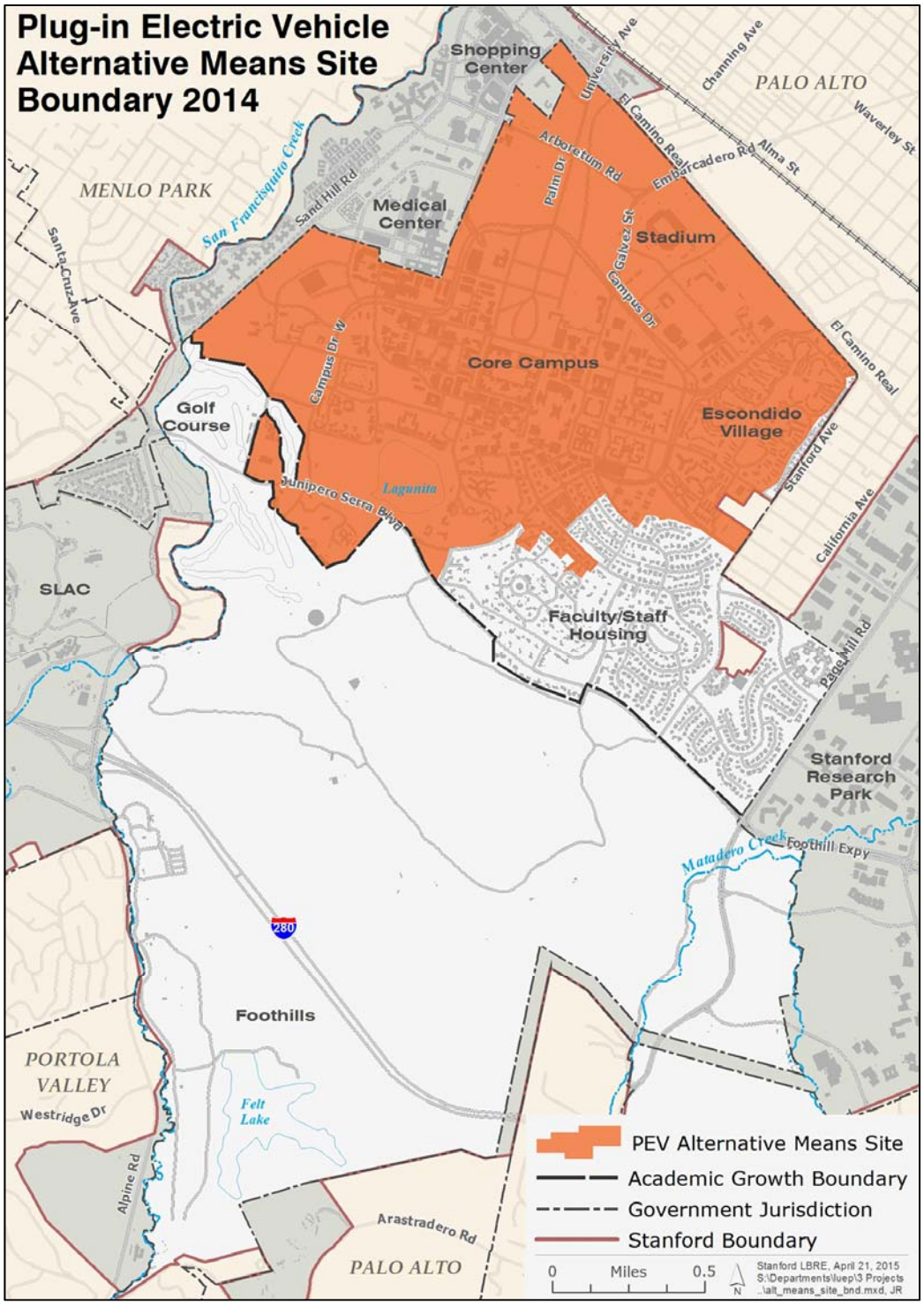
MAP A-4
TRAFFIC MONITORING CORDON BOUNDARIES

Appendix A
Reference Maps



MAP A-5
GENERAL ORIENTATION MAP OF STANFORD UNIVERSITY
(UNINCORPORATED SANTA CLARA COUNTY)

Appendix A
Reference Maps



MAP A-6
PLUG-IN ELECTRIC VEHICLES ALTERNATIVE MEANS SITE BOUNDARY 2014

Appendix B
GUP Conditions and Compliance Activities

Appendix B
GUP Conditions and Compliance Activities

GUP Condition		Stanford Compliance
A.	**Building Area**	
A.1.	GUP allowed construction on unincorporated Santa Clara County lands.	Illustrations and details are provided in Section IV of this report of all major projects that received ASA during the current reporting year. Projects are described in detail in the annual report for the period in which ASA was granted; however, academic and support building area is counted against the building area cap in the period during which the project received a building or grading permit. Table 1 in Section II of this annual report shows building area accounting during this reporting period relative to the "GUP building area cap." During this reporting period, 1 housing unit received final framing inspection. As of August 31, 2017, the cumulative number of framed housing units is 2,405, as shown in Section II (Table 3). During the AR 17 reporting period, there was a net increase of 177 parking spaces. Changes that resulted from these projects are enumerated in Section II (Table 4).
A.2.	Building area allowed in addition to the GUP building area cap.	The remaining 1989 GUP approved square footage was consumed during the Annual Report 5 reporting period, per Condition A.2.a. The 2000 GUP (Condition A.2.c) allows Stanford University to install up to 50,000 sq. ft. as surge space during construction activities in the form of temporary trailers, which shall not be counted towards the GUP building area cap. During AR 17, the 1215 Welch Rd Modulars (C, D, E) were approved for future demolition and removed from the temporary surge space inventory, as shown in Section II (Table 2).
A.3.	Construction that does not count toward the GUP building area cap.	The 2000 GUP (Condition A.3.a) allows up to 40,000 sq. ft. of additional building area for the purpose of new childcare or community centers. During AR 17, as shown in Section II (Table 2), the CCSC Childcare project was approved but not yet constructed.
B.	**Framework**	
B.1.	Development under the GUP must be consistent with the Community Plan and General Plan.	8 ASA/ASX projects were approved consistent with the policies in the Community Plan and the General Plan.
B.2.	Definition of a proposed building project.	No action required.
B.3.	Minimum time duration of GUP (modification possible, subject to County Ordinance).	No action required.
B.4.	Funding of work associated with conditions of GUP.	Stanford paid all costs associated with work conducted by the County Planning Office in relation to the GUP

Appendix B
GUP Conditions and Compliance Activities

GUP Condition	Stanford Compliance
	(staff time, consultant fees, and direct costs associated with report production and distribution) in a timely manner.
C. Monitoring, Reporting, and Implementation	
C.1. Preparation of an Annual Report that summarizes Stanford's development over the preceding year, upcoming development, and compliance with GUP conditions.	This Annual Report fulfills Condition C.1. for the reporting period of September 1, 2016 to August 31, 2017.
C.2.a. County of Santa Clara Planning Office has the responsibility of preparing the Annual Report.	The County Planning Office staff prepared and distributed this 17th Annual Report pursuant to the 2000 GUP.
C.2.b. Funding for Annual Report by Stanford.	Stanford provided funding to the Santa Clara County Planning Office for all aspects of this Annual Report in a timely manner.
C.2.c Stanford to submit information related to Annual Report.	Stanford provided required information for this Annual Report in a timely manner.
C.2.d. Annual Report presentation to the Community Resource Group (CRG).	The Draft Annual Report 17 was presented to the CRG on April 12, 2018.
C.2.e. Presentation of the Annual Report to the Planning Commission in June of each year.	This Annual Report 17 is scheduled for presentation to the Planning Commission at the June 2018 public hearing.
C.2.f. Time period and content of the Annual Report.	This Annual Report documents Stanford's development activity and compliance with 2000 GUP conditions, and any specific conditions, associated with building projects proposed between September 1, 2016 and August 31, 2017.
C.3. Funding of work associated with implementing tasks identified in the CP and GUP.	Stanford paid all costs associated with work conducted by the County Planning Office in relation to the CP and GUP during this reporting period (including staff time and consultant fees) in a timely manner.
D. Permitting and Environmental Review	
D.1. Review of proposed building projects and issuance of all necessary permits and approvals in accordance with County requirements.	8 projects received ASA/ASX during the reporting period, as described in Section II and detailed in Section IV of this Annual Report.
D.2. Compliance with adopted GUP conditions and adopted mitigation measures within the Mitigation Monitoring and Reporting Program (MMRP).	During this reporting period, Stanford submitted 12 ASA/ASX applications for projects proposed under the 2000 GUP. All approved projects were in compliance with GUP conditions. For additional details, see Section II of this annual report and Condition K.7 in Appendix B.
D.3. Compliance with CEQA requirements.	All projects that received ASA/ASX approval also received adequate CEQA review and clearance during

GUP Condition		Stanford Compliance
		the reporting period as specified in this GUP condition. (See also GUP Conditions D.4 and I.2).
D.4.	Determination of appropriate level of environmental assessment.	Relevant measures identified in the EIR, and incorporated into the GUP, have been incorporated into the conditions of approval for each project. Additional project conditions of approval were included where necessary.
D.5.	Project specific environmental assessment.	A project-specific traffic study was submitted for the Center for Academic Medicine (CAM) project during the reporting period.
D.6.	Impact areas to be considered in environmental assessment.	Not applicable.
E.	**Academic Building Area**	
E.1.	Distribution of 2,035,000 square feet of academic and academic support facilities distributed among ten development districts.	During the reporting period, academic/academic support facilities were approved for the Campus Center, Lagunita, West Campus, and DAPER Districts. (See Section IV Project Summaries for details).
E.2.	Deviation from the proposed distribution of academic development.	During the reporting period, the redistribution of 546 academic square feet was approved from the East Campus to the West Campus District for the Educational Farm Huffington Barn project. The redistribution of 16,490 academic square feet was approved from the East Campus to the Lagunita District for the Denning House project.
E.3.	Maximum allowable development in the Lathrop District shall be 20,000 square feet.	No development was proposed for the Lathrop District during the reporting period.
E.4.	No academic development allowed in the Arboretum District.	No academic development was proposed for the Arboretum District.
E.5.	Complete and submit a Sustainable Development Study (prior to cumulative development total of more than 1,000,000 net square feet).	The Sustainable Development Study (SDS) was approved by the Board of Supervisors on April 7, 2009. More detail on the SDS process was provided in AR 9. Appendix E provides an Annual Report of Stanford's sustainable activities. Stanford is in compliance with GUP Condition E.5.
F.	**Housing**	
F.1.	Type and distribution of the 3,018 housing units allowed under the GUP.	One student housing project adding 1 student unit was completed. To date, 2,405 net new housing units have been built or framed. The Escondido Village Graduate Residences Project was approved during this reporting period for 2,020 net new student units. Please see the Project Summary in Section IV. In FY 13, a GUP Housing Amendment was proposed to allocate 372 faculty/staff units in West Campus to 166 student units in Lagunita and 206 student units in East Campus. The Amendment was approved on

GUP Condition		Stanford Compliance
		November 26, 2013. In FY 15, a GUP Housing Amendment was submitted to allow all remaining unused housing allocation to be usable for any type of university affiliate housing. The Amendment was approved on May 5, 2015. Redistributions of housing units across development districts were approved during FY 6, 13, 14, 16, and 17.
F.2.	Other allowed housing sites.	During the FY 17 reporting period, the Lagunita-Eucalipto Project proposed one housing unit in the Lagunita Residence Halls, which is not listed on the sites designated on Map 3, Appendix A.
F.3.	Allowable variation of housing development.	See compliance with GUP Condition F.2 above, and F.4 below.
F.4.	Deviation from estimated housing distribution.	The redistribution of one housing unit from the Campus Center to the Lagunita District occurred in FY 17 for the Lagunita-Eucalipto project.
F.5.	No housing may be constructed in the Foothills, Lathrop, or Arboretum districts.	No housing projects were proposed for any of these districts during the reporting period.
F.6.	Compliance with affordable housing requirement.	Stanford has complied with the affordable housing requirement. Stanford pays the in-lieu fee for applicable projects prior to occupancy. Stanford University has complied with County requests for in-lieu. As of August 2017, the affordable housing fees were assessed at the rate of $20.37 per square foot of net new academic or academic support space approved under the building permit. Stanford has made affordable housing fee payments as of August 2017 totaling $26,118,671.11. Five affordable housing projects have been built so far with $13,345,811. The five projects were built within the 6 mile radius from Stanford Campus boundary and have provided 286 affordable housing units, with 137 units restricted to very low income to extremely low income families. Maybell Orchard proposed by Palo Alto Housing Corporation, originally planned to provide 50 units, was cancelled in November 2013. The fund balance as of August 2017 was $12,772,860.11 which has been set aside by the Board towards the Buena Vista Mobile Home Park project in Palo Alto, which has approximately 117 units.
F.7.	Allowance for additional housing beyond 3,018 units.	In FY 16, pursuant to GUP Condition F.7, the addition of 1,450 housing units beyond the initial 3,018 unit housing authorization was approved, for the Escondido Village Graduate Residences project. Stanford's new housing authorization is 4,468 units. No additional housing allowance was proposed in FY 17.

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F.8.	Housing linkage requirements.	The GUP requires 1,815 housing units to be provided as part of a housing "linkage" to Stanford development of 1,500,000 cumulative sq. ft. of academic square footage. Stanford has constructed a total of 2,405 net new housing units, which complies with the housing linkage requirement.
F.9.	For purposes of the linkage requirement, the County will consider Stanford to have met housing compliance at the time of framing inspection.	The County has and continues to use the framing inspection for determination of the housing linkage requirement.
F.10.	Petition for modification of the housing linkage requirements.	Stanford made no petition for modification of the housing linkage requirement.
F.11.	Adoption of new zoning designations for Campus Residential – Low Density and Campus Residential – Medium Density.	Completed during Annual Report 1 reporting period.
F.12.	Allowed suspension of the housing linkage requirement.	There was no suspension of the housing linkage requirement.
G.	**Transportation**	
G.1.	Intersection modifications.	Completed during Annual Report 1 reporting period.
G.2.	Continued compliance with 1989 GUP transportation requirements.	Stanford continues to offer and further expand the following programs that were in effect during the 1989 GUP: Marguerite shuttle system, carpool and vanpool incentives, bicycle and pedestrian services, alternative transportation promotional activities, and staff support of alternative transportation programs. Several program changes were made in previous years, which have helped encourage the use of alternative transportation as a means of arriving and departing the campus, and are described fully in AR 9. Changes to the programs are described in subsequent annual reports. In 2016-17, the Zipcar program maintained a fleet of more than 65 vehicles, the largest Zipcar program at any university in the country. The Marguerite shuttle system now has 24 routes and 80 buses, with an estimated annual ridership of over 3.2 million. The Marguerite fleet includes 23 electric buses, with an additional 18 on order for the 2017-18 academic year. It also includes 5 diesel-electric hybrid buses, and 52 vans, shuttles, and buses fueled by diesel. Marguerite also oversees seven motor coaches used for our Transbay service, which has seen continued ridership growth over the last year. Stanford is the first university to receive a renewal of its Platinum designation as a Bicycle Friendly University. Stanford's bicycle program accommodates an estimated 13,000 bikes on campus each day and has parking capacity for over 19,000 bikes. Stanford added

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		another bicycle safety repair stand on campus, bringing the total number up to 10. Membership in the Commute Club, an incentive program for commuters who choose not to drive alone, rose to over 10,000 people in 2016-17. Promotions in the spring and fall celebrated and encouraged alternative commuting, most notably through an art contest and a departmental commute game. These promotions awarded prizes including food truck parties, various gift cards, promotional items and cash. The Commute Advocates program continued to grow. Free vanpools were introduced. Free transit passes, the Refer-A-Friend promotion, the Part-Time Pledge, and programs for bicycle commuters continued to support and encourage sustainable commuting.
G.3.	Mitigation of transportation impacts from additional development and population growth.	The County hired an independent consultant, AECOM Engineering, to complete traffic studies. See Appendix D of this document for a summary of results.
G.4.	No net new commute trips.	Year 17 cordon counts were conducted in Spring 2017 and completed in Fall 2017. The 2017 Monitoring Report concluded that the adjusted morning (AM) inbound count totaled 3,202 vehicles which was a decrease of 117 vehicles from the baseline, which falls below the 90% confidence interval, and does not represent a significant AM inbound traffic increase. The afternoon (PM) outbound count totaled 3,324 vehicles, which is a decrease of 122 vehicles from the baseline, and also falls below the 90% confidence interval and does not represent a significant PM outbound traffic increase. Therefore, Stanford met the No Net New Commute Trips standard. Although Stanford programs removed non-Stanford trips from intersections in the local impact area, Stanford chose not to submit trip credits to the County this year. Therefore, Stanford complied with GUP Condition G.6.
G.5.	Traffic counts cost.	Stanford submitted all requested funds in a timely manner.
G.6.	Baseline count established prior to construction of first new non-residential structure or by an alternative methodology determined to be more accurate.	Baseline cordon counts were completed during AR 1 and 2 reporting periods.
G.7.	Traffic counts and determination of traffic volume.	The traffic counts were conducted in Spring 2017 and completed in Fall 2017 by the County's traffic consultant, AECOM Engineering. As described in Appendix D of this report, the results of the 2017 counts were analyzed against the baseline counts previously collected, and were determined not to exceed the traffic limits threshold for the AM and PM

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	peak hour traffic, even without the application of any trip credits.
G.8. Off-campus trip reduction.	During FY 17, Although Stanford programs removed non-Stanford trips from intersections in the local impact area, Stanford chose not to submit trip credits to the County this year.Stanford was also below the 2000 GUP EIR thresholds for vehicle counts.
G.9. Monitor cordon count volumes.	A summary report of traffic monitoring is provided as Appendix D to this annual report.
G.10. Neighborhood traffic studies.	No additional neighborhood traffic study requests have been received by the County Planning Office.
G.11. Project-specific traffic studies.	No projects during the reporting period required project-specific traffic studies.
G.12. Construction traffic management plan.	Stanford informed both its Public Safety Office and the University Fire Marshall's Office about site work and schedules for all construction projects that could affect emergency access. The University Fire Marshall's Office has regular coordination meetings with the Palo Alto Fire Department, where they update the Department on any emergency route changes. In addition, Stanford requires, through contract with the general contractors, that emergency vehicle access is always kept available through work areas. The Stanford Contracts office provides a general "Stanford Area truck routes map" to all general contractors and all the associated sub-contractors for the project at the time of contract release. The map also includes pedestrian zones, weight limits, service vehicle parking areas, and loading areas. In addition, Stanford provides copies of the map to contractors that come into the Parking and Transportation office to purchase Service Vehicle permits. This map and others are available on the web at http://transportation.stanford.edu/. The County and Stanford continue to work towards consistent inclusion of a traffic management plan as part of the construction plan set available on site.
G.13. Special event traffic management plan.	Compliance with this requirement was achieved during the AR 3 reporting period.
G.14. Junipero Serra Boulevard/ Stanford Avenue traffic group.	The full JSB/Stanford Avenue Multi-Jurisdictional Group did not meet during the reporting period; however, an ad hoc working group including Stanford, the SCRL and County Roads and Airports (CR&A) met on several occasions regarding the JSB traffic calming project. In June 2010, County Supervisor Liz Kniss announced that the County Board of Supervisors had approved $1.5M in funding to complete the project. CR&A awarded a design contract in March

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		2011. Construction documents (30% stage) were issued in August 2011. A draft Initial Study was issued for public review in November 2011. A final CEQA document was adopted in March 2012. CR&A anticipated starting construction in spring of 2012. However, due to permitting constraints from the Regional Water Quality Control Board delayed the approval process. Stanford presented a conceptual redesign to CR&A in the Spring of 2015 that could eliminate the permitting constraints. Stanford conducted neighborhood outreach to share the concept with SCRL representatives. The conceptual design was reviewed for engineering feasibility by CR&A in summer 2015. In summer 2016, a CEQA Addendum was completed for the redesign. Final engineering drawings were prepared in FY 17, and the County identified funding to construct the project. Construction is expected to begin in FY 18.
H.	**Parking**	
H.1.	Net additional parking spaces shall not exceed 2,300 spaces, with the exception of parking provided for any housing in excess of 3,018 units.	During the reporting period, changes in parking resulted in an estimated net increase of 177 parking spaces on the campus for a total cumulative decrease since September 1, 2000 of 1,062 spaces. Changes in parking occurred in the West Campus, Lagunita, Campus Center, Quarry, Arboretum, DAPER & Administrative, East Campus, and San Juan Development Districts. See Section II, Table 4, and Appendix C-3 for details.
H.2.	Residential Parking Permit Program.	Stanford paid the City of Palo Alto $100,000 towards the development of a Residential Parking Permit Program. Stanford is in compliance with Condition H.2. The City of Palo Alto conducted a College Terrace Parking Permit Program experiment in 2008 and 2009 and subsequently adopted a permanent program in late 2009. The program includes continued monitoring of the parking patterns in the neighborhood.
I.	**Parks and Recreation Facilities**	
I.1.	Improve parks in the San Juan faculty/staff residential area.	At the April 8, 2004 ASA meeting, the ASA Committee accepted the *Stanford University Program for the Replacement of Recreational Facilities in the San Juan District*. Stanford has complied with the requirement to submit the plan, and future compliance will be required through implementation of the plan, if triggered by infill development.
I.2.a.	In consultation with the County Parks and Recreation Department, identify and complete Trail Easements within one year of GUP approval.	Stanford entered into an agreement with the County on January 3, 2006, to construct the S1 trail in Santa Clara County and to make offers to Los Altos Hills for the funding of a trail extension through that town and to

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	the Town of Portola Valley and San Mateo County for improvements to the C1/E12 Alpine Trail. Construction of S1 Trail: Construction of the off-road portions of the S1 trail was completed in May 2011. Santa Clara County accepted the trail easement and the trail opened in May 20, 2011. All aspects of the S1/ Matadero Trail in unincorporated Santa Clara County including trail construction, associated roadway improvements, and dedication of easements are complete. Construction of C1/E12 Trail: Stanford's proposal for the design and funding of the C1/E12 Alpine Trial (segment in Portola Valley) improvements was accepted by the Town of Portola Valley in 2009. All aspects of the C1/E12 Alpine Trial in Portola Valley including trail construction, associated roadway improvements, and dedication of easements are complete. Construction of C2/Arastradero Trail: Construction and trail improvements were completed and the trail was dedicated on November 1, 2013. The trail links the S1/Matadero Trail (at the Arastradero Road and Purissima Road intersection) to the Pearson-Arastradero Preserve. Construction of Stanford Perimeter Trail: San Mateo County and Stanford did not reach agreement for the San Mateo C1 segment and in February 2012, Stanford paid the County approximately $10.3 million. In August 2012, the County issued a request for applications for projects that would serve as alternative mitigation measures to address the loss of recreational facilities on the Stanford campus. The County received 15 project applications from six local agencies. The Board of Supervisors declared its intent to fund six of the 15 projects, including $4.5 million back to Stanford to construct a perimeter trail along El Camino Real and Stanford Avenue frontages. The Board also directed County Administration to negotiate projects agreements for the selected projects and submit approval to the Board consistent with the requirements of CEQA. Stanford proposed a 3.4 mile Stanford Perimeter Trail along Junipero Serra Boulevard, Stanford Avenue, and El Camino Real. The Trail was approved in December 2014. Work on the Trail began Spring 2015. The Trail was completed without County funding, and open to the public in April 2016.

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I.2.b.	Work with County Parks and Recreation Department to identify responsibilities for trail construction, management and maintenance.	Identification of trail construction, management, and maintenance responsibilities had begun previously, based on Stanford's 2001 proposal (see Condition I.2.a above and "Overview of Monitoring Activities"). A trail management plan for S1 was accepted by Santa Clara County, along with the easement, in May 2011.
J.	**California Tiger Salamander (CTS)**	
J.1.	Habitat protection easements for protection of the CTS.	Condition superseded by Stanford's Habitat Conservation Plan (see Condition J.9).
J.2.	Specifics of habitat protection easements.	Condition superseded by Stanford's Habitat Conservation Plan (see Condition J.9).
J.3.	Creation of breeding ponds for CTS prior to issuance of a building permit for a proposed building project on occupied CTS habitat.	Condition superseded by Stanford's Habitat Conservation Plan (see Condition J.9).
J.4.	CTS monitoring.	Condition superseded by Stanford's Habitat Conservation Plan (see Condition J.9).
J.5.	Project specific measures in CTS Management Zone.	Condition superseded by Stanford's Habitat Conservation Plan (see Condition J.9).
J.6.	Operational measures required within the CTS Management Zone.	Condition superseded by Stanford's Habitat Conservation Plan (see Condition J.9).
J.7.	Continued compliance with 1998 CTS Management Agreement.	Condition superseded by Stanford's Habitat Conservation Plan (see Condition J.9).
J.8.	CTS passage ways across Junipero Serra Boulevard.	Condition superseded by Stanford's Habitat Conservation Plan (see Condition J.9).
J.9.	U.S. Fish and Wildlife Service permit prior to construction on occupied CTS habitat if CTS is listed as threatened or endangered.	The final Stanford University Habitat Conservation Plan (HCP) and Final Environmental Impact Statement (EIS) were published on November 23, 2012, and revised in March 2013. On August 13, 2013, the County Board of Supervisors acknowledged the determination that the HCP provides equal habitat value and protection for the California Tiger Salamander (CTS). Therefore, the HCP supersedes all conditions in the GUP that address the CTS, as stated in Condition J.9.
K.	**Biological Resources**	
K.1.	Special-status plant surveys.	No special species plant surveys were done during this reporting period.

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K.2.	Preconstruction surveys for breeding raptors and migratory birds.	The County hired Environmental Science Associates to complete 4 surveys for breeding raptors and migratory birds potentially affected by Stanford projects.
K.3.	Oak woodland habitat – create or restore at a 1.5:1 ratio for proposed building projects located in oak woodland area.	During this reporting period, the Golf Course Restoration project was proposed near oak woodland habitat, but all trees proposed for removal were outside of oak woodland habitat.
K.4.	Tree preservation for proposed building projects affected by protected trees.	All projects were conditioned to protect existing trees during construction. Stanford proposed appropriate mitigation for the loss of protected trees greater than 12 inches diameter at breast height (dbh) in the ASA applications for all projects.
K.5.	Stanford to hire biological consultant to prepare wetlands description.	Compliance with this requirement was achieved during the AR 3 reporting period. Subsequent wetland delineations are conducted in compliance with Army Corps of Engineers guidelines.
K.6.	Updates to CA Natural Diversity Database.	Stanford submitted CNDDB sheets to the State in the following years: May 2003 – California tiger salamander (three seasons of data) and California red-legged frog (four years of data) Dec 2014 - California tiger salamander (6 seasons of data) and California red-legged frog (12 years of data) Dec 2015 - California tiger salamander (1 season of data) and California red-legged frog (1 year of data) Dec 2016 - California tiger salamander (1 season of data) and California red-legged frog (2 years of data)
K.7.	Special conservation area plan.	Stanford submitted a "Conservation Program and Management Guidelines for the Special Conservation Areas" to the County on December 11, 2001. The County waited for the Stanford HCP to be approved and adopted before directing Stanford with specific requirements for modification and resubmittal. The Stanford HCP was approved on August 13, 2013 (see Condition J.9). Stanford submitted and the County accepted a revised Special Conservation Area Plan in August 2015, fulfilling Condition K.7.
L.	**Visual Resources**	
L.1.	Streetscape design for El Camino Real prior to or in connection with submitting an application for development along El Camino Real.	During AR 8, Stanford completed and submitted a draft *Plan For The El Camino Real Frontage,* approved by the County of Santa Clara Architectural and Site Approval Committee on April 10, 2008. Stanford is in compliance with Condition L.1.
L.2.	Minimum 25-foot building setback from Stanford Avenue.	No building projects were proposed on Stanford Avenue during the reporting period.

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L.3.	Lighting plan for development projects that include exterior light sources.	Project-specific lighting plans were submitted with ASA applications during the reporting period.
L.4.	Development locations in the Lathrop Development District.	No development was proposed in the Lathrop District.
M.	**Hazardous Materials**	
M.1.	Hazardous materials information/Risk Management Plan for each proposed building project.	Hazardous materials information was provided in the ASA applications for all projects proposed or approved during the reporting period. No projects were proposed or approved during the reporting period that triggers the California Accidental Release Prevention (CAL-ARP) law.
M.2.	Maintenance of programs for storage, handling, and disposal of hazardous materials.	University Dept. of Environmental, Health and Safety (EH&S) continues to provide key resources in the planning, development, and implementation of effective environmental and health and safety training programs. Where appropriate and possible, EH&S provides in-house training programs that enable University managers and supervisors to deliver health and safety training directly to their staff. Schools, Departments and Principal Investigators provide other levels of training throughout the University. During this reporting period, EH&S maintained a training catalog that included 94 separate training courses. Stanford staff, faculty, and students through both on-line and classroom sessions completed a total of 29,361 trainings. Stanford also extends its training efforts by providing training and information resources on the World Wide Web at http://ehs.stanford.edu. Surveys of campus and medical center labs, shops and studios are conducted on a routine basis to provide compliance assistance regarding hazardous materials, hazardous waste, fire safety, biological safety and chemical safety requirements. Personnel conducting the surveys often work one-on-one with personnel in labs, shops and studios to help them understand pertinent compliance requirements. Hazardous Materials Management Plans for existing buildings storing hazardous materials are submitted annually to the Santa Clara County Environmental Health Hazardous Materials Compliance Division as online updates via the Cal/EPA California Environmental Reporting System Portal. To facilitate hazardous materials tracking and reporting, Stanford has implemented an on-line chemical inventory database system whereby authenticated chemical users may maintain their hazardous materials inventories, supporting timely and accurate submission of required regulatory reports.

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		The University Committee on Health and Safety meet five times during the reporting period. The committee membership includes a member from the public as well as faculty, staff and students. Issues considered by the committee included environmental, health and safety activities, and initiatives conducted at the SLAC National Accelerator Laboratory. The EH&S Department reviews each set of plans for new structures and those for renovation and/or remodeling of existing structures to help ensure that the risks associated with activities conducted in Stanford's buildings are addressed, and that all facilities projects are undertaken in compliance with applicable environmental and health and safety laws, codes, and regulations. EH&S also conducts Environmental and/or Human Health Risk Assessments for new projects as required by the Bay Area Air Quality Management District and as appropriate as part of the building planning process. EH&S personnel specifically responsible for handling hazardous wastes and for emergency response are trained by certified independent professionals and by professional EH&S staff in accordance with all applicable regulations. The operational waste personnel are augmented and assisted by professional environmental engineers, chemists, and environmental managers. As a part of waste minimization activities, EH&S operates a Surplus Chemical redistribution program, which reduces the disposal of unused chemicals, therefore reducing the amount of hazardous waste generated, and the costs of disposal. Redistribution volumes are dependent on department and laboratory changes, which can vary annually. In FY 2017, EH&S redistributed 172 unneeded chemical containers from laboratory inventories to other campus users.
N.	**Geology and Hydrology**	
N.1.	Compliance with all requirements of the Uniform Building Code, County Geologist, County Building Inspection Office, Stock Farm Monocline Agreement, and others defined under the GUP in regard to reduction of seismic risk.	Stanford is in compliance with Condition N.1 requirements. These are reviewed through the ASA applications submitted, and building and grading permits issued during the reporting period. See Section II of this report for project details.
N.2.	Hydrology and drainage study.	The Storm Water Detention Master Plan for the Matadero Creek watershed was submitted by Stanford and accepted by the County during the Annual Report 4 reporting period. Stanford is responsible for implementing phased measures consistent with the

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	plan prior to development of new impervious cover within the watershed. Regarding storm drainage and flood control, Stanford and the County reached agreement on the approach and engineering design criteria for detention provisions to avoid increases in peak runoff flow rate from the campus in the San Francisquito Creek watershed. Stanford continued with implementation of its storm drainage master plan for both detention and protection of campus facilities, engineering the remaining barriers to divert overland flows away from structures to streets and malls, and Phase 1 and II of the West Campus detention basins. With these improvements and the detention basins constructed previously in the Matadero watershed, Stanford has mitigated anticipated runoff from a substantial portion of its future development under the 2000 GUP in compliance with Conditions N.2 and N.3.
N.3. Storm water management facilities designed to only store storm water runoff temporarily and not create extended ponding.	The Serra/El Camino Real (ECR) and the West Campus Storm Water Detention Facilities projects are designed to accommodate increases in the 10-year and 100-year storm runoff associated with 2000 GUP development in the Matadero and San Francisquito Creek watersheds respectively. These projects are designed to drain within a couple of days, thereby avoiding extended ponding. An initial phase of this plan was implemented when the Stock Farm/Sand Hill Road Detention Basins were completed during the AR 4 reporting period. Phase II of the West Campus Detention Basins was completed during FY 16.
N.4. Groundwater recharge study in conjunction with projects located in unconfined zone.	Stanford has prepared and submitted a draft campus-wide groundwater recharge plan that describes the groundwater recharge mitigation approach in coordination with the Santa Clara Valley Water District and the County. This plan accounts for water from Stanford's Lake Water system that is directed to Lagunita (where it percolates) in an amount that exceeds the cumulative groundwater recharge lost from projects built in the unconfined zone. Stanford and County staff finalized this plan on May 27, 2015. The annual groundwater recharge mitigation monitoring report has been submitted to the County for tracking purposes.
N.5. Review and approval for storm water/ groundwater recharge facilities.	The ASA and grading or building permit-approved projects during the 15th annual reporting period are anticipated to result in new impervious surface area in the Matadero Creek and San Francisquito Creek watersheds. The cumulative increase of impervious surfaces on campus has been mitigated by the

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	Serra/ECR detention basins and West Campus detention basins Phase I and II (completed during FY 4 and FY 16 respectively), to avoid impacts with respect to reduced groundwater recharge. Stanford and the County track the cumulative increase in impervious surface against the amount that can be mitigated by the constructed basins.
N.6. Notice of Intent to State Water Resources Control Board (SWRCB) prepared each year for anticipated projects.	Stanford submitted a Notice of Intent (NOI) to join the State of California General Storm Water Construction Permit on June 29, 2001. Stanford received acceptance on July 10, 2001. An updated NOI was submitted to the State Water Resource Control Board as well as to the San Francisco Regional Water Quality Control Board in accordance with the NPDES General Permit on July 16, 2009. On September 2, 2009 the State Water Resources Control Board adopted a new construction permit for all construction projects over 1 acre. Due to reporting and sampling requirements listed in the new State permit, Stanford has been applying for permit coverage on a project-by-project basis for all new construction over 1 acre. All projects listed below were either terminated, continued, or started from the period September 1, 2016 through August 31, 2017 and can be viewed via the State Board's SMART system located at http://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.jsp. Projects terminated from September 1, 2016 – August 31, 2017: • Graduate School of Business New Residence, WDID # 2 43C370238 • Deer Creek Staging Area, WDID # 2 43C374351 • New Residences at Lagunita Court, WDID # 2 43C371164 • Lomita and Roth Parking Lot and Lomita Road, WDID # 2 43C375562 • 408 Panama, WDID # 2 43C370010 • Golf Learning Center, WDID # 2 43C372512 • Old Chemistry Building, WDID # 2 43C371587 • Parking Structure 10 & Roble Gym, WDID # 2 43C370396 Projects started/continuing from September 1, 2016 – August 31, 2017: • Cogen Plant Demo, WDID # 2 43C372589

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	• Hoover Conference Center & Office Building, WDID # 2 43C373618 • Stanford Regional Loading Dock Expansion, WDID # 2 43C375190 • Stanford 18-Hole Golf Course, WDID # 2 43C380227 • Escondido Village Graduate Housing, WDID # 2 43C378743 • Serra Roundabout/Serra Street, WDID # 2 43C380436 • Frost Amphitheater Renovations, WDID # 2 43C379712
N.7. Monitor effectiveness of storm water pollution prevention best management practices; monitor at construction sites before and during storm events occurring during construction period.	Each construction site under the 2000 GUP that disturbs one acre or more is permitted through the General Permit for Discharges of Storm Water Runoff Associated with Construction Activity. The information submitted as part of the permit will be updated yearly to reflect the current construction projects. In accordance with that permit, the sites are required to have a Storm Water Pollution Prevention Plan (SWPPP). Each SWPPP outlines the Best Management Practices for preventing storm water pollution on that specific site. To ensure that the BMPs are working and in place, each construction project is required to monitor the construction site and BMPs before, during, and after rain events or weekly, whichever is more frequent. The project is required to maintain inspection logs on site, documenting the monitoring program. Stanford storm water staff visits the sites at least once per month to ensure compliance with BMPs and monitoring. In addition, Stanford is required to send an Annual Compliance Status Report to the State Water Resources Control Board, certifying compliance with the provisions of the General Permit for Discharges of Storm Water Runoff Associated with Construction Activity, including BMPs and monitoring.
N.8. Surveys to determine presence and location of wells prior to issuance of any building permit or grading permit.	Stanford performed surveys to identify existing wells on building sites with ASA applications as required. Stanford reviews these historic wells surveys with every building project and confirms in the applications that no historic wells not properly closed are at the project location.
N.9. Permit from Santa Clara Valley Water District for any proposed construction, demolition, grading, landscaping within 50-feet of the top of the bank.	In 2007, SCVWD adopted an approach to defer to local permitting agencies for work conducted in creeks, and no longer require SCVWD permits.

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N.10	No new land use or practices within the unconfined zone that could pose a threat to the groundwater quality or supply.	In 2009, Stanford mailed an informative pamphlet to all residential leaseholders whose property is located within the unconfined zone. This pamphlet contains valuable information regarding the sensitive nature of these properties with respect to the potential for downward migration of contaminants to groundwater. The pamphlet also provides "Best Management Practices" regarding proper application of landscape chemicals, notifying Stanford of abandoned wells and fuel tanks, and safe management of household chemicals and hazardous waste. Stanford also mailed this pamphlet to all other residential leaseholders that are not located within the unconfined zone as a part of continuing outreach.
O.	**Cultural Resources**	
O.1.	Assessment of structure with potential historic significance for building projects that involve the demolition of a structure 50 years or older.	The following buildings were evaluated prior to demolition and found to be ineligible for listing on the California Register: Organic Chemistry, Pepper Tree House, Escondido Village Phases II, III, IV.
O.2.	Requirements for remodeling, alteration, or physical effect on structures that are 50 years old or more.	The Frost Amphitheater Renovations Project was reviewed and found to be inconsistent with the Secretary of the Interior Standards and received ASA Approval.
O.3.	Archaeological resources map.	The Stanford archaeologist provided draft maps to the County Planning Office in March 2001 and a revision in 2014. These maps show the locations of all known prehistoric and historic archaeological resources in the unincorporated Santa Clara County portion of Stanford land. County and Stanford staffs will continue to work on revision and updates to these maps so they can be utilized by County staff to identify all known cultural resource site boundaries on Stanford land within the County's jurisdiction. All maps and updates will be maintained as confidential records. In FY 17, the Golf Course Restoration Project was found to have areas of archaeological sensitivity and an archaeological monitoring and data recovery program was implemented.
O.4.	Required actions if fossilized shell or bone is uncovered during earth-disturbing activities.	No fossilized shell or bone was uncovered during 2000 GUP construction activities.

Appendix B
GUP Conditions and Compliance Activities

GUP Condition		Stanford Compliance
P.	**Public Services and Utilities**	
P.1.	Law Enforcement Agreement.	"Memorandum of Understanding Regarding Police Services Between Santa Clara County and Stanford University" was signed February 6, 2001, and signed again in May and June of 2007. Per the GUP Condition, Stanford is providing funding for the Stanford Police Department to maintain 32 full-time sworn police officers (one officer per 1,000 daytime population). There was no decrease in the level of police services during the reporting period.
P.2.	Funding of Fire Protection Services.	The City of Palo Alto assesses the city's fire protection needs on an annual basis and adopts a yearly budget for fire protection services. As part of this process, the City identifies Stanford's share of this budget, and Stanford pays its annual allotment. Stanford is currently in discussion with City of Palo Alto regarding future funding for fire protection services.
P.3.	Fire protection response times.	The Palo Alto Fire Department notified the County in May 2015 that it has experienced lengthened response times as a result of campus construction. Per Condition P.3 Stanford is investigating whether alternate routes would address the Fire Department's concerns. To date the Palo Alto Fire Department has not indicated that the increased response times are unacceptable. Stanford is currently corresponding with Fire Station 6 regarding construction roadway changes.
P.4.	Water conservation and recycling master plan.	Stanford has performed effective conservation outreach and education, as evidenced by County staff discussions with campus facility managers. Stanford also has undertaken numerous water conservation projects, including installation of water misers, toilet retrofits, low flow jet spray nozzles, and Maxicom controls. The County continues to monitor Stanford implementation of the approved master plan as a measure of compliance with this condition. The County consults with the SCVWD to determine compliance. The SCVWD assessment is that Stanford appears to be implementing aggressive water conservation measures. The University has completed the plan and it was approved.
P.5.	Annual daily average water use.	The allowed average daily water allocation from the San Francisco Water Department is 3.033 million gallons per day (mgd). Stanford's average campus domestic water use for the 2016-17 year was 1.42 mgd.
P.6.	Information on wastewater capacity and generation.	Stanford submitted project-specific wastewater capacity information as necessary with ASA application materials.

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P.7.	Palo Alto Unified School District school impact fees.	Stanford paid school impact fees for all applicable building permits.
P.8.	Community Services Study.	No study was required during this reporting year.
Q.	**Air Quality**	
Q.1.	Compliance with Bay Area Air Quality Management District (BAAQMD) measures for construction activities.	Grading activities associated with 2000 GUP projects that commenced during the reporting period complied with the BAAQMD control measures incorporated into the ASA conditions of approval.
Q.2.	Maintenance of equipment for construction activities.	Stanford requires all construction contractors to properly maintain equipment.
Q.3.	Conduct a risk screening analysis and obtain BAAQMD permit for building projects containing more than 25,000 square feet of laboratory space and 50 fume hoods.[1]	All approved projects were required to comply with BAAQMD's permitting, control measures, and recommendations, as appropriate. The ChEM-H & SNI project crossed the 25,000 square feet of laboratory space and 50 fume hoods threshold. The risk screening analysis and BAAQMD permit is typically conducted and obtained for projects nearing construction completion. Stanford is working on these items and will likely obtain the BAAQMD permit in 2018.
R.	**Noise**	
R.1.a-e	Compliance with County Noise Ordinance during construction activities of each building project.	Construction activities associated with 2000 GUP projects complied with the County Noise Ordinance and incorporated noise reduction measures as required by ASA conditions of approval.
R.2.	Limits on construction hours.	Construction activities associated with 2000 GUP projects were limited to construction hours as specified by the County Noise Ordinance.
R.3.	Operational noise reduction measures.	ASA-approved building projects incorporated all county-specified noise reduction measures (listed in Section D of the MMRP) and complied with the County Noise Ordinance.
R.4.	Limits on fireworks displays.	Two fireworks events per calendar year are permitted under the GUP. Other fireworks events require an entertainment event license from the Planning Office. From September 1, 2016 through August 31, 2017, the Spring Baseball game and the Earthquakes Soccer game received separate permits, while the Frost Music and Arts Festival used one of the pre-approved permits.
R.5.	Maintenance of hotline for noise complaints.	Stanford continues to meet the GUP condition by operating the noise hotline at (650) 724-4900, which was established to log complaints related to outdoor

[1] Note: Q.3 has been confirmed to match BAAQMD regulations, which requires both triggers in order to do risk screening.

GUP Condition		Stanford Compliance
		special events and high impact events on campus. Stanford continues to use this hotline to record concerns about noise disruptions and complaints on campus. In FY 17, a change was made in the hotline structure in order to provide callers the option to connect to Stanford Public Safety dispatch at (650) 329-2413 for timely action regarding the complaint, or the caller can log a noise complaint with the operator mail box. All of the 13 noise complaints received during the AR 17 reporting period to the noise hotline were from campus residents about noises within residential areas on-campus, such as party noise and loud music. Stanford continues to work with different types of residential communities to maintain acceptable levels of noise and strengthen communications between campus community members.
S.	**Additional Conditions**	
S.1.	Acceptance of Conditions of Approval.	See Annual Report 1.

Appendix C
Cumulative Project

Appendix C
Cumulative Projects

Completed building projects under the GUP cap, housing projects, parking, non-GUP building projects and grading projects are tracked in Appendix C. A map and table are provided for each category to illustrate the project, its location, its square footage/housing units/parking spaces counted toward the GUP cap, and in which annual report period the project was completed. Each table provides a cumulative total of square footage, housing, or parking to date. A table also provides a cumulative total of non-GUP building projects. Additional backup data is kept on file by Stanford and the County.

Section II of this annual report provides brief descriptions of each project on which there was activity during the current reporting year. Projects listed in Appendix C that were completed in prior years are not reported in the body of the Annual Report. Detailed information on these projects may be found in previous Annual Reports.

Appendix C
Cumulative Projects

KEY TO MAP C-1 ANNUAL REPORT 1 THROUGH ANNUAL REPORT 17 CUMULATIVE BUILDING PROJECTS THAT AFFECT GUP BUILDING AREA CAP				
Fiscal Year	**Map No.***	**Project**	**Built Area (sq. ft.)**	**Net Addition to GUP Building Cap**
Annual Report 1 (2000-01)	N/A	None	N/A	0
Annual Report 2 (2001-02)	1	Student Services	20,000	22,790
		Demo Bridge Building	(-2,752)	
		Band Trailer	4,320	
		Demo existing Band Trailer	(-2,160)	
		Rugby Pavilion	3,382	
Annual Report 3 (2002-03)	2	Carnegie Global Ecology Center	18,164	32,023
		Demolish Carnegie Greenhouses	(-6,161)	
	3	Lucas Center Expansion	20,600	
		Electronics Communications Hub-West	1,500	
		Demolition of Ortho Modular	(-2,080)	
		SoM Trailer Replacement	0	
		Galvez Modular Re-Permit	0	
Annual Report 4 (2003-2004)	4	Maples Pavilion Addition	18,298	92,915
		Demolish Maples Ticket Booth	(-179)	
	5	Arrillaga Family Recreation Center	74,796	
Annual Report 5 (2004-2005)	6	Varian 2	63,869	39,763
		Building 500	3,254	
		Wilbur Modular Ext.	(-27,360)	
Annual Report 6 (2005-2006)	7	Environment and Energy Building	164,087	116,237
		GP-B Modular Demolition	(-8,640)	
		Varian 2 (gsf adjustment from AR 5)	8,305	
	8	HEPL Demolition	(-71,425)	
		Engineering Shed	(-929)	
		Galvez Too	(-4,320)	
	9	Football Stadium Renovations	33,050	
		Munger House Relocations	906	
		Avery Aquatic	1,445	
		Band Trailer	(-4,320)	
		Guard Shelter	42	
		579 Alvarado (Humanities Annex)	(-3,258)	
		Barnum Family Center	2,337	
		Brick Barn	4,690	
		Knoll Trailer A	(-2,912)	
		Knoll Trailer B	(-2,821)	
Annual Report 7 (2006-2007)		None	N/A	0
Annual Report 8 (2007-2008)	10	Lorry I. Lokey Stem Cell Research Building (SIM 1)	198,734	323,264
	11	Li Ka Shing Center for Learning and Knowledge (LKSC)	104,000	
		Demolish Fairchild Auditorium	(14,600)	
		Demolish Welch Road Modulars	(4,030)	
	12	Center for Nanoscale Science and Technology	99,297	

KEY TO MAP C-1 ANNUAL REPORT 1 THROUGH ANNUAL REPORT 17 CUMULATIVE BUILDING PROJECTS THAT AFFECT GUP BUILDING AREA CAP				
Fiscal Year	**Map No.***	**Project**	**Built Area (sq. ft.)**	**Net Addition to GUP Building Cap**
		Demolish Ginzton	(69,714)	
Annual Report 8 (2007-2008) continued				
	13	Jen-Hsun Huang School of Engineering Center	125,639	
		Demolish Terman Engineering	(148,818)	
		Lorry I. Lokey (Stanford Daily) Building	4,783	
		Demolish Storke Building	(9,040)	
		Li Ka Shing Center for Learning and Knowledge - Connective Elements	5,890	
		Peterson Building Renovation	(661)	
	14	John A. and Cynthia Fry Gunn SIEPR Building	31,784	
Annual Report 9 (2008-2009)	15	Knight Management Center	331,093	72,776
		Demolish GSB South	(167,371)	
		Demolish Serra Complex	(84,000)	
		Demolish Kresge Auditorium	(13,042)	
		Cobb Track Bleacher addition	3,950	
		Arrillaga Gymnasium and Weight Room	19,951	
		Site 515 Demolition	(1,540)	
		Volkswagen Automotive Innovation Lab	8,000	
		Oak Road Restrooms	499	
		Golf Practice Storage Trailer	432	
		Cubberley Seismic Project	(3,654)	
		Press Building Demolition	(14,303)	
		Recalculation of gsf with Annual Reports 1 through 8	(7,239)	
Annual Report 10 (2009-2010)	16	Neukom Building	61,014	126,676
	17	Bing Concert Hall	78,350	
		DAPER Corps Yard Demolition	(12,688)	
Annual Report 11 (2010-2011)		Braun Music Center	167	174,723
		Bing Concert Hall adjustment	7,185	
	18	Retention of GSB South	167,371	
Annual Report 12 (2011-2012)	19	Arrillaga Outdoor Education and Recreation Center	75,000	223,725
	20	Bioengineering and Chemical Engineering	196,172	
	21	Satellite Research Animal Facility	20,507	
		Anatomy demolition	(66,579)	
		Cagan Soccer locker rooms	3,345	
		Cypress Annex demolition	(960)	
		Quonset Hut demolition	(3,760)	
Annual Report 13 (2012-2013)		Ford Center Addition (from AR 8)	8,710	165,092
	22	Arrillaga Family Sports Center Addition	27,709	
	23	Anderson Collection at Stanford	30,279	
	24	Replacement Central Energy Facility	14,715	
		Grounds trailer demolition	(722)	

KEY TO MAP C-1 ANNUAL REPORT 1 THROUGH ANNUAL REPORT 17 CUMULATIVE BUILDING PROJECTS THAT AFFECT GUP BUILDING AREA CAP				
Fiscal Year	**Map No.***	**Project**	**Built Area (sq. ft.)**	**Net Addition to GUP Building Cap**
	25	McMurtry Art - Art History	84,239	
		New Field Hockey Bleachers	2,397	
		Windhover Contemplative Center	3,928	
		Encina Modular Demolition	(8,400)	
		520/524 Renovation	2,237	
Annual Report 14 (2013-2014)		Northwest Data Center and Communications Hub	3,130	52,735
	26	408 Panama Mall	56,790	
		Educational Farm	864	
		Roble Gym Renovation	544	
		Field Conservation Facility	2,842	
	27	Demolition of Godzilla Trailer	(11,435)	
Annual Report 15 (2014-2015)	28	Science Teaching & Learning Center – Old Chem	68,151	(45,179)
		Sunken Diamond New Entry/Locker Room Expansion	3,410	
		Cagan Soccer Field Bleacher Lockers	2,658	
		Maples Pavilion Addition	1,135	
		Softball Field House	2,618	
		Football Stadium New Locker Room	8,966	
		Siebel Varsity Golf Training Complex	3,431	
		Demolish golf storage trailer	(432)	
		Demolition of old Field Conservation Facility	(2,821)	
		Meyer Library Demolition	(124,710)	
		Lasuen Restrooms	1,023	
		Demolition of Central Energy Facility	(8,715)	
		Hogan Lab Renovation Project	107	
Annual Report 16 (2015-2016)	29	David and Joan Traitel Building, Hoover Institution	50,340	5,010
		Demolition of Cummings Art Building	(51,024)	
		Demolition of HEPL Powerhouse	(3,684)	
		Regional Loading Dock Expansion (loading dock and café)	2,284	
		Demolition of Stauffer III	(19,611)	
		Demolition of Gazebo II	(1,017)	
		Earth Sciences Courtyard Infill	2,586	
	30	Kingscote Gardens Renovation	20,298	
	31	Bass Biology Building	120,337	
		Demolition of Herrin Hall	(35,944)	
		Demolition of Herrin Labs	(78,047)	
		Demolition of Campus Gas Station	(1,508)	
Annual Report 17 (2016-2017)		Golf Learning Center	295	215,047
	32	ChEM-H & SNI	210,946	
		Home of Champions	2,440	
		Educational Farm Huffington Barn	1,263	
		Organic Chem demolition	(14,270)	

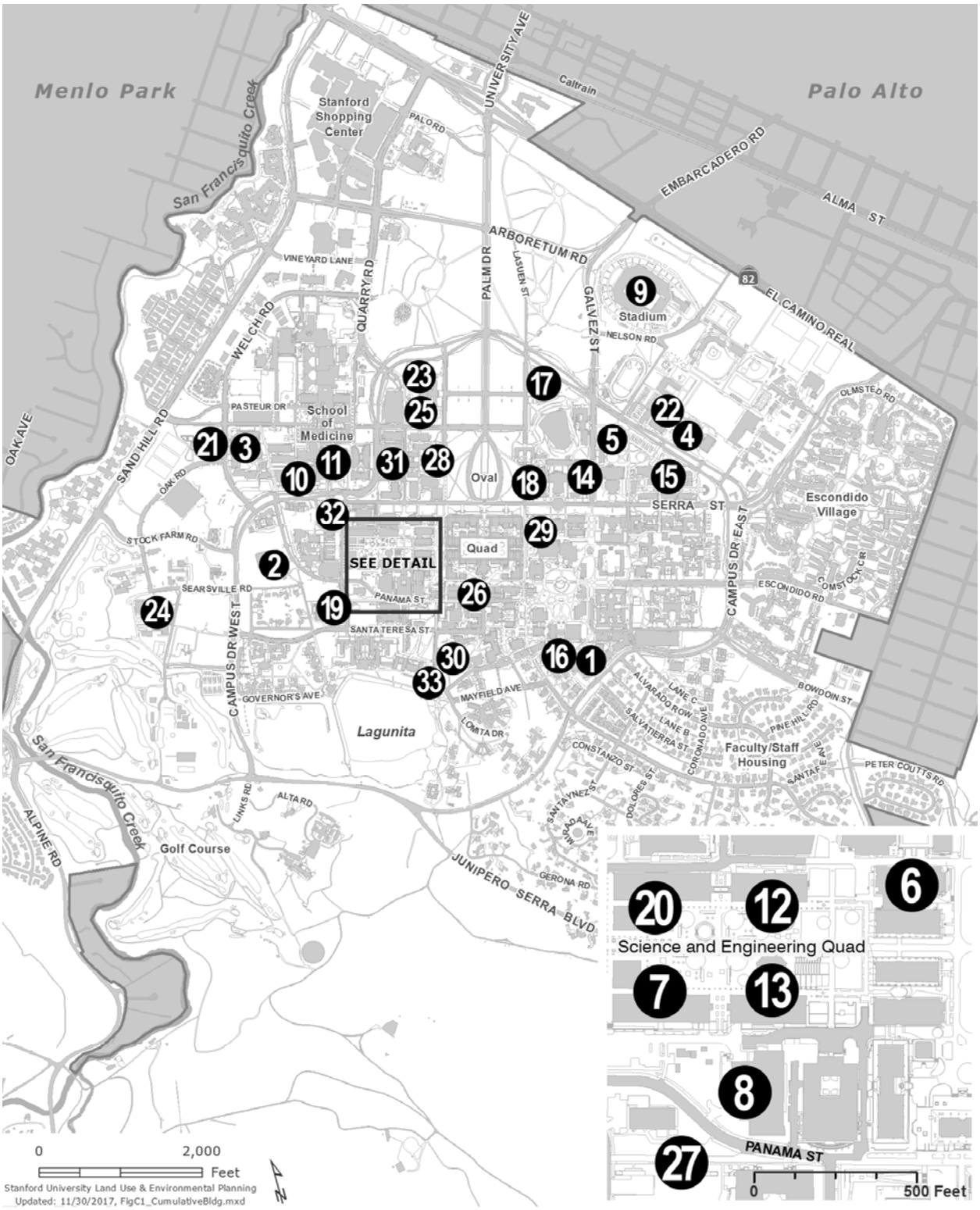
KEY TO MAP C-1
ANNUAL REPORT 1 THROUGH ANNUAL REPORT 17
CUMULATIVE BUILDING PROJECTS THAT AFFECT GUP BUILDING AREA CAP

Fiscal Year	Map No.*	Project	Built Area (sq. ft.)	Net Addition to GUP Building Cap
	33	Denning House	16,451	
		Frost Amphitheater renovations	9,707	
		Bonair Huts for East Campus Utilities	(11,785)	
Cumulative Net Contribution toward 2000 GUP Building Cap:				**1,617,597**

1. Projects included at the time of building permit issuance.

2. Cumulative total includes the adjusted results from the recalculations for buildings and demolitions from previous annual reports under the 2000 GUP. Specific adjustments are not reflected in this table at this time.

*Map C-1 illustrates the locations of building projects 10,000 sq. ft. or greater. Projects smaller than 10,000 sq. ft. are not shown on Map C-1.



MAP C-1
CUMULATIVE BUILDING PROJECTS THAT AFFECT BUILDING AREA CAP
(GREATER THAN 10,000GSF)

KEY TO MAP C-2
ANNUAL REPORT 1 THROUGH ANNUAL REPORT 17
CUMULATIVE HOUSING PROJECTS

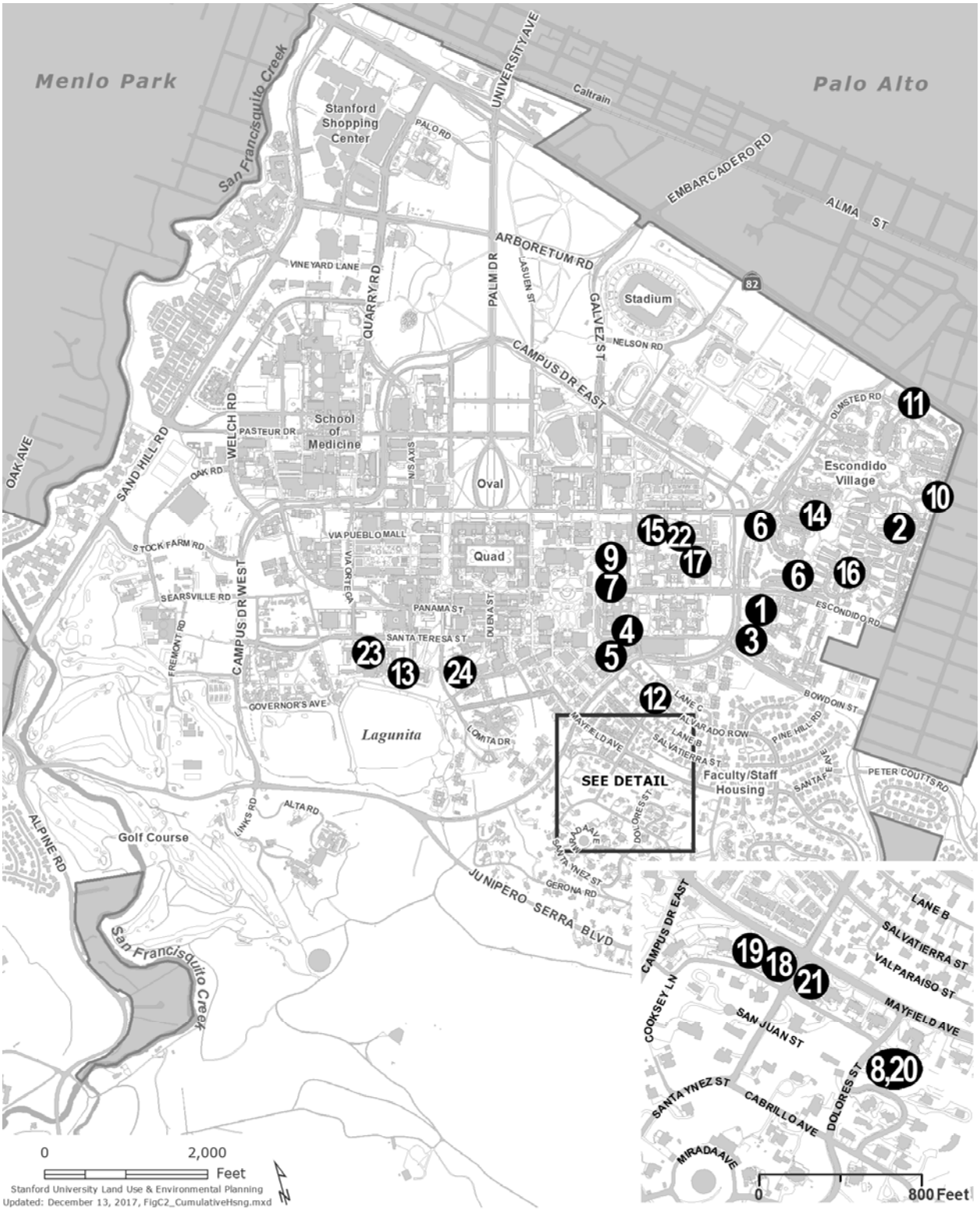
Fiscal Year	Map No.*	Project	Housing Units	Square Footage	Annual Units	RHNA Units
Annual Report 1 (2000-01)	1	Mirrielees – Phase I	102	0	102	
Annual Report 2 (2001-02)	2	Escondido Village Studios 5 & 6	281	139,258	331	281
	3	Mirrielees – Phase II	50	0		
		Branner Student Housing Kitchen	0	1,596		
Annual Report 3 (2002-03)	N/A	None	N/A	N/A	0	
Annual Report 4 (2003-04)	N/A	None	N/A	N/A	0	
Annual Report 5 (2004-05)	N/A	None	N/A	N/A	0	
Annual Report 6 (2005-2006)		Drell House (conversion to academic)	-1	(-906)	(-8)	-1
		579 Alvarado	1	3,258		1
	4	Casa Zapata RF Unit Replacement	-8	(-691)		1
Annual Report 7 (2006-2007)		None	N/A	N/A	0	
Annual Report 8 (2007-2008)	5	Munger Graduate Housing	349	267,683[1]	349	209
Annual Report 9 (2008-2009)	5	Munger Graduate Housing	251	192,517[1]	514	147
		Schwab Dining Storage	N/A	464		
	6	Blackwelder/Quillen Dorms	130	N/A		
	7	Crothers Renovation	133	N/A		1
Annual Report 10 (2009-2010)	8	717 Dolores	4	0	70	
	9	Crothers	2	0		
	10	Olmsted Terrace Faculty Housing	39	103,127		39
	11	Olmsted Staff Rental Housing	25	53,831		25
		Arrillaga Family Dining Commons	N/A	28,260		
Annual Report 11 (2010-2011)	6	Quillen Dorm Phase 2	90	N/A	90	
Annual Report 12 (2011-2012)	12	Hammarskjold renovation	7	1,730	9	
		Haus Mitt renovation	1	210		
		Phi Sigma renovation	1	420		
Annual Report 13 (2012-2013)		Grove House Renovation	N/A	500	427	
		Columbae Renovation	N/A	950		
		Slavianskii Dom Renovation	N/A	961		

KEY TO MAP C-2
ANNUAL REPORT 1 THROUGH ANNUAL REPORT 17
CUMULATIVE HOUSING PROJECTS

Fiscal Year	Map No.*	Project	Housing Units	Square Footage	Annual Units	RHNA Units
		Muwekma-Tah-Ruk Renovation	N/A	450		
	13	Ujamaa	2	N/A		
	14	McFarland	63	N/A		
		EV summer renovation	(2)	N/A		
	15	Toyonito Demolition	N/A	(13,298)		
	16	Comstock graduate housing demolition	(74)	(30,547)		(40)
	16	Comstock Graduate Housing	438	256,258		274
Annual Report 14 (2013-2014)		Mars Renovation	1	273	2	
		Sigma Nu Renovation	N/A	628		
		Roth Renovation	1	508		
		Durand Renovation	N/A	675		
Annual Report 15 (2014-2015)	17	Manzanita Park Residence Hall	129	41,805	133	4
	18	Phi Kappa Psi	2	505		
	19	Kairos	2	979		
Annual Report 16 (2015-2016)	20	717 Dolores	2	928	385	
	21	La Maison Francaise	(2)	871		
	22	GSB Residences	200	124,670		101
	23	New Residences at Lagunita Court	218	74,300		2
	24	Kingscote Gardens Renovation	(33)	(20,298)		(33)
Annual Report 17 (2016-2017)		Lagunita-Eucalipto	1	0	1	0
Cumulative Net Contribution toward 2000 GUP Housing Units			**2,405**	**1,231,875**	**2,405**	**1,011**

*Map C-2 illustrates the locations of housing projects that add or remove more than one unit, and have been framed. Individual housing projects are not shown on Map C-2.

1. Based on an average of 767 square feet per unit constructed for the Munger Graduate Student Housing project.



MAP C-2
CUMULATIVE HOUSING PROJECTS

KEY TO MAP C-3
ANNUAL REPORT 1 THROUGH ANNUAL REPORT 17
CUMULATIVE PARKING PROJECTS

Fiscal Year	Map No.*	Project	Parking Spaces	Spaces Subtotal
Annual Report 1 (2000-01)	1	Removal of Arguello Lot	(55)	(29)
	2	Oak Road Angle Parking	52	
		Oak Road Parallel Parking	12	
		Student Services Building	(38)	
Annual Report 2 (2001-02)		Band Modular Project	23	31
	3	Parking Structure V	97	
	4	Oak Road (Angle to Parallel)	(66)	
		Closure of Anatomy Lot	(28)	
		Maples Lot	5	
Annual Report 3 (2002-03)		PS-1 Restriping/ADA	(29)	394
		Maples Lot	21	
	5	Escondido Village Expansion	212	
	6	Serra Street Reconstruction	50	
		Arguello Lot	37	
		Mirrielees Lot Reconfiguration	(23)	
	7	Cowell Lot Expansion	154	
		Carnegie Global Center Parking	17	
		Misc. reconstruction/restripe/ADA	(45)	
Annual Report 4 (2003-2004)		Anatomy Lot Reopening	26	(91)
		Encina Gym/ Arrillaga Rec Center Construction	(17)	
		Ventura Lot Closing-CSLI/EPGY Annex Construction	(21)	
		Housing Maintenance Yard Project	(25)	
		Graduate Comm. Center Parking Lot	(35)	
		Misc. reconstruction/restripe/ADA	(19)	
Annual Report 5 (2004-2005)		Stock Farm Bus Reconfiguration	(47)	(159)
		Dudley & Angell Recount	(20)	
		Mayfield 3 Recount	(23)	
		Misc. reconstruction/restripe/ADA	(69)	
Annual Report 6 (2005-2006)	8	Ginzton Lot Closure (for Environment & Energy construction)	(211)	(659)
		Humanities Lot (for Old Union Surge Trailers)	(20)	
		Law School Lot/ House Relocation/ Prep for Munger construction	(26)	
	9	Mariposa Lot/ Munger Law School/ House Relocation/ Columbae Renovation	(115)	
	10	Stock Farm Bus Reconfiguration	(64)	
	11	Tresidder Lot (for House Relocation)	(138)	
		Dudley & Angell/ Olmsted Road	24	
	12	Eating Clubs Lot (for Old Union Surge)	(87)	
	13	Stern Lot	(64)	
	14	Wilbur-Stern Temporary Lot	108	
	15	Wilbur Modulars Removal	131	
	16	Wilbur South Lot (for PS 6)	(128)	
		Misc. reconstruction/restripe/ADA	(69)	

KEY TO MAP C-3
ANNUAL REPORT 1 THROUGH ANNUAL REPORT 17
CUMULATIVE PARKING PROJECTS

Fiscal Year	Map No.*	Project	Parking Spaces	Spaces Subtotal
Annual Report 7 (2006-2007)	17	Li Ka Shing Center for Learning and Knowledge displacement	(505)	(798)
		Tresidder – Post House Relocation project	34	
Annual Report 8 (2007-2008)	18	Munger Displacement	(369)	
		Misc. Reconstruction/restripe/ADA	42	
		Dean's Lawn reconfiguraton	(27)	93
	19	Beckman/MSOB Closure for Li Ka Shing Center for Learning and Knowledge construction	(206)	
	20	Memorial Lot closure for John A. and Cynthia Fry Gunn SIEPR Building	(81)	
	21	Serra closure for Knight Management Center	(712)	
	22	Maples closure for Athletics Practice Gym	(75)	
	23	Parking Structure 6	1,185	
		Misc. Reconstruction/restripe/ADA	9	
Annual Report 9 (2008-2009)	24	Oak Road Parking Lot	197	(313)
	25	Arguello and 651 Serra Closure	(267)	
		Track House	(46)	
	26	Barnes & Abrams For Olmsted Road Staff Rental Housing	(96)	
		Dudley & Angell for Stanford Terrace Faculty Homes	(42)	
		Miscellaneous reconstruction/restripe/ADA	(59)	
Annual Report 10 (2009-2010)	27	Beckman Lot reopening	66	(56)
	28	Toyon lot closure for Arrillaga Family Dining Commons	(163)	
		Miscellaneous reconstruction/restripe/ADA	41	
Annual Report 11 (2010-2011)		Cypress lot closure for BioE/ChemE	(44)	810
		Stock Farm West reconfiguration for bus parking	(20)	
		Roth Way reconfiguration for bus loading	(36)	
	29	Parking Structure 7	858	
		Dudley & Angell	49	
		Miscellaneous reconstruction/restripe/ADA	3	
Annual Report 12 (2011-2012)		Lasuen@Arboretum – Bing and Galvez	39	(236)
	30	Anatomy-McMurty Art - Anderson	(95)	
	31	L-17 (Stockfarm South) – Temp Child Care	(75)	
		L-25 (Panama) – West Campus Rec Center	(23)	
		Lasuen – Bing Concert Hall	(26)	
		L-73 (Stern Annex) – East Campus Rec	(37)	
		Miscellaneous reconstruction/restripe/ADA	(19)	
Annual Report 13 (2012-2013)	32	L-20 (Stock Farm West) - SESI Project laydown	(202)	(68)
		L-25 (Panama) - West Campus Recreation Center	28	
	33	L-96 (Galvez) - Galvez Event Lot completion	423	
	34	Comstock - Comstock Graduate Housing Project	(84)	
		L-65 (Cowell @ Bowdoin) - Contractor laydown	(49)	
	35	L-31 (Roble) - Windhover Project	(69)	
	36	L-01 (Rectangle) - Parking Structure 9 construc. yard	(86)	
		Miscellaneous reconstruction/restripe/ADA	(29)	

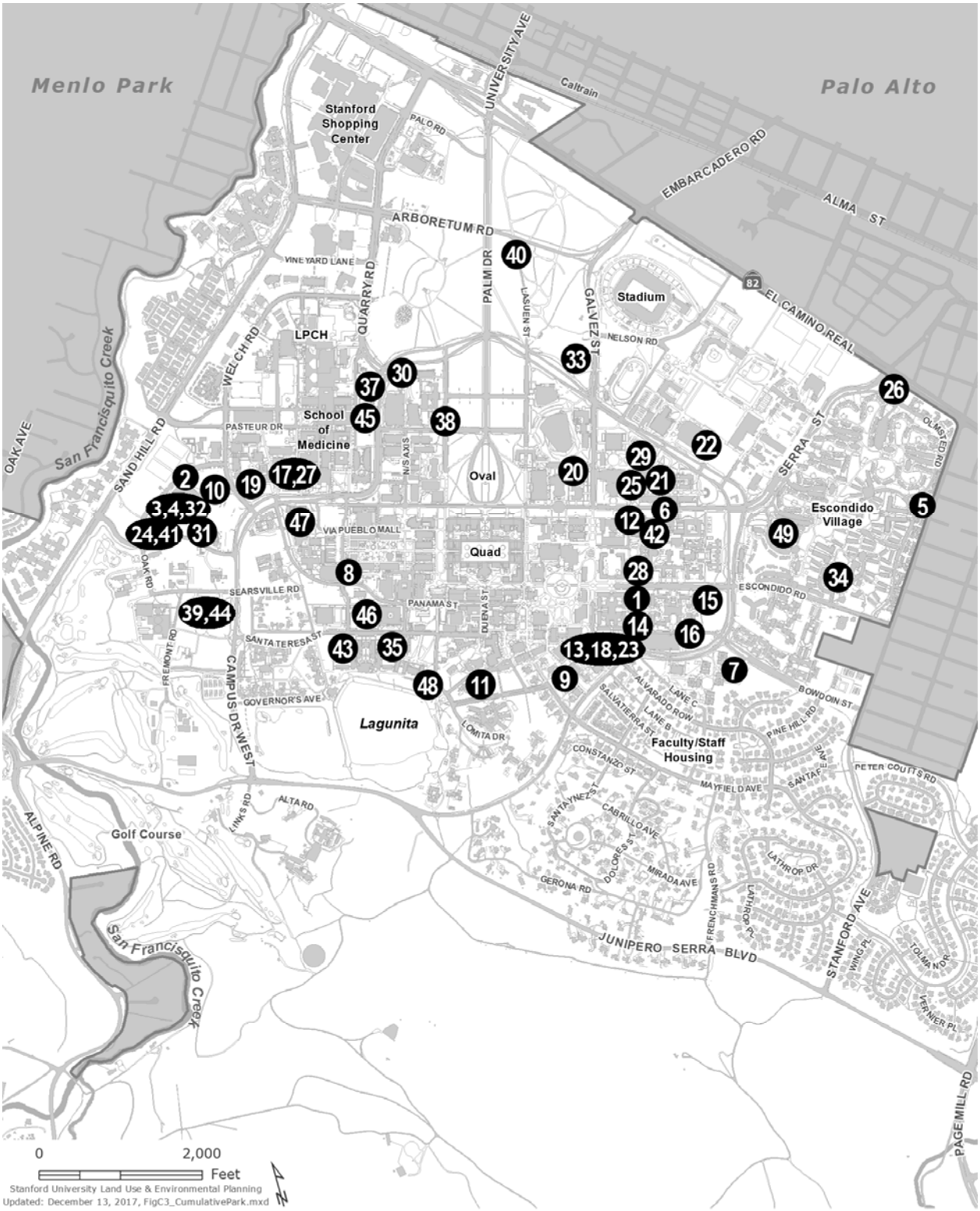
KEY TO MAP C-3
ANNUAL REPORT 1 THROUGH ANNUAL REPORT 17
CUMULATIVE PARKING PROJECTS

Fiscal Year	Map No.*	Project	Parking Spaces	Spaces Subtotal
Annual Report 14 (2013-2014)	37	Dean's Lawn for SHC Steam Plant	(106)	526
		Cypress lot reopening	40	
		Panama Lot for Roble Garage	(27)	
	38	Lomita at Rodin	(72)	
	36	Rectangle parking Lot reopening	75	
	39	Searsville Lot net loss on Searsville Road	592	
		Miscellaneous reconstruction/restripe/ADA	24	
Annual Report 15 (2014-2015)	40	Lasuen @ Arboretum reconfiguration and partial closure	(168)	(695)
		Gates Lot closure for Bio Quad construction	(32)	
	41	L-20 (Stock Farm West) – removal of laydown, restoration of parking	117	
		Roth Way – Tour bus reconfiguration	32	
	42	L-79, L-81 (GSB Highland Hall project)	(108)	
	43	L-29, L-31, Santa Teresa @ Lagunita and Santa Teresa @ Sterling (New Residences at Lagunita Court and Roble Field projects)	(395)	
	44	L-22 (Searsville lot) – Construction laydown	(126)	
		Miscellaneous reconstruction/restripe/ADA	(15)	
Annual Report 16 (2015-2016)	45	L-09 (Deans Lawn and Evening Shift)	70	11
		L-25 (Panama) – Via Ortega South roadway construction	(43)	
		Galvez Roundabout and West Burnham Parking lot reconfigurations	(23)	
		L-79 (GSB Residences) – parking reconfiguration	21	
	43**	L-29 and L-31 (at Lagunita Court) – reconfiguration	117	
	44**	L-22 (Searsville lot) – construction laydown converted back to permit parking	126	
		Miscellaneous reconstruction/restripe/recount/ADA	(60)	
		Correction – removing Marguerite, tour bus, charter bus, and authorized oversize vehicle parking and staging spaces from L-20, Oak Road, and Arboretum	(108)	
		Correction - removing spaces at L-1A and Hoover Pavilion Garage (in Palo Alto)	(61)	
		Correction - removing Faculty/staff-only parking spaces from residential zoned areas	(28)	
Annual Report 17 (2016-2017)	46	Parking Structure 10	1160	177
	47	L-21 (Jordan Quad) ChEM-H & SNI project	(157)	
		L-25 (Panama)	35	
		Kingscote	23	
	48	L-35 (Boat House) Denning House project	(60)	
		L-31 (Roble Lot)	(22)	
	49	Parking removed due to Escondido Village Graduate Residences project	Total (787)	
		Blackwelder	(186)	
		Hoskins	(144)	

KEY TO MAP C-3 ANNUAL REPORT 1 THROUGH ANNUAL REPORT 17 CUMULATIVE PARKING PROJECTS				
Fiscal Year	**Map No.***	**Project**	**Parking Spaces**	**Spaces Subtotal**
		Jenkins	(106)	
		McFarland	(185)	
		Quillen	(95)	
		Thoburn	(71)	
		Miscellaneous reconstruction/restripe/recount/ADA	(15)	
Cumulative Net Contribution toward 2000 GUP Parking Cap:				**(1,062)**

* Map C-3 illustrates the locations of parking projects that change the parking inventory by more than 50 spaces.

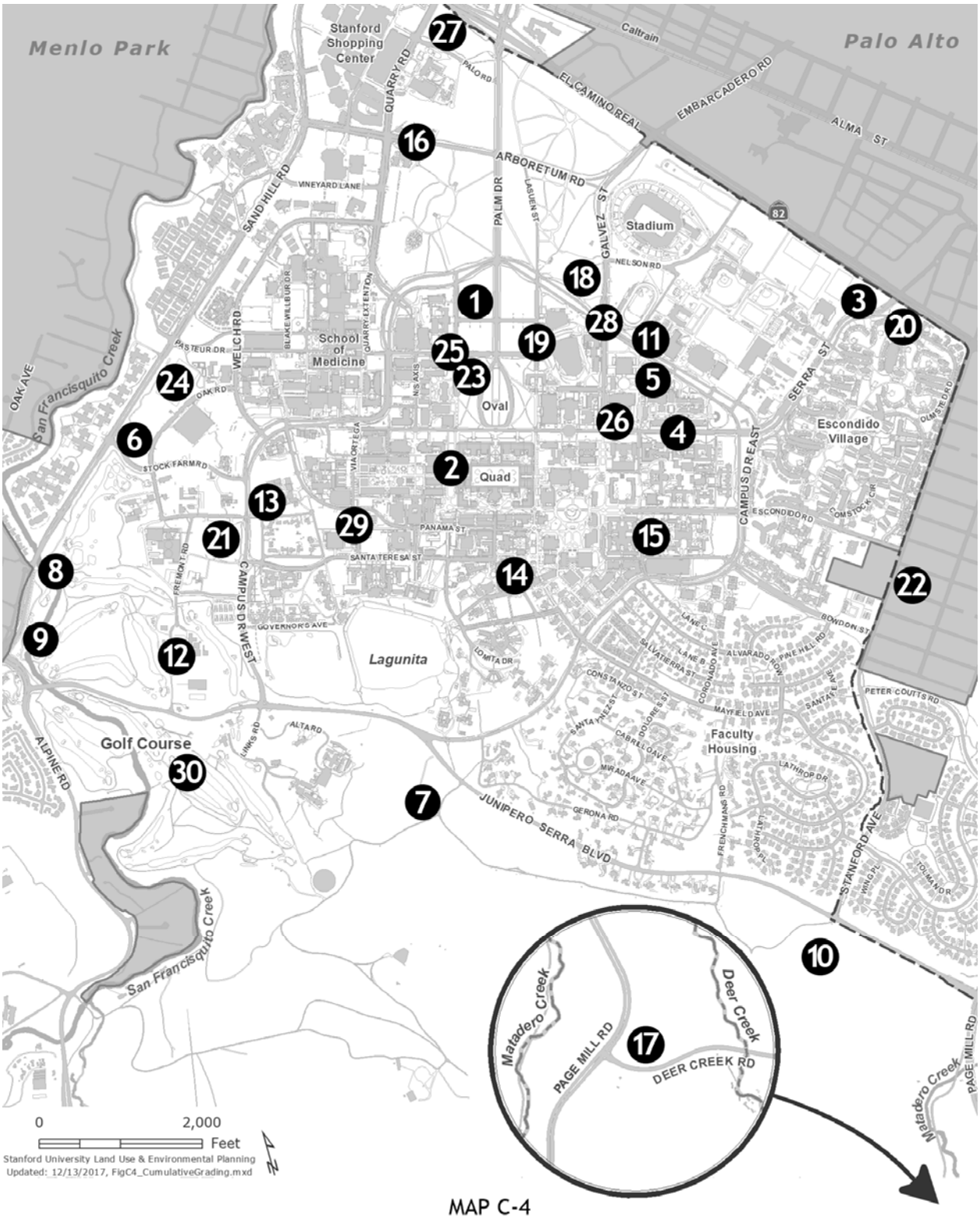
** Location 43 and 44 in AR 15 are listed again in AR 16 due to significant changes in those parking lots.



MAP C-3
CUMULATIVE PROJECTS THAT AFFECT PARKING INVENTORY (+/-50 SPACES OR MORE)

KEY TO MAP C-4 ANNUAL REPORT 1 THROUGH ANNUAL REPORT 17 CUMULATIVE GRADING PERMIT PROJECTS		
Fiscal Year	**Map No.**	**Project**
Annual Report 1 (2000-01)	1	Sandstone Sculpture
Annual Report 2 (2001-02)	2	Lomita Mall
	3	Serra/ECR Detention Basin
	4	Serra Street Reconfiguration
	5	Encina Tennis Courts
Annual Report 3 (2002-03)		None
Annual Report 4 (2003-04)	6	West Campus Storm Detention
	7	CTS Breeding Ponds
	8	Hole #3 Golf Cart Bridge Replacement
Annual Report 5 (2004-2005)	9	Hole #4 Golf Cart Bridge Replacement
	10	Temporary Art in Foothills
	11	Taube Tennis Practice Bleachers
Annual Report 6 (2005-2006)	12	Equestrian Center
	13	Carnegie Grading Permit
Annual Report 7 (2006-2007)		None
Annual Report 8 (2007-2008)		None
Annual Report 9 (2008-2009)	14	Dinkelspiel Stage
Annual Report 10 (2009-2010)		None
Annual Report 11 (2010-2011)		None
Annual Report 12 (2011-2012)	15	Arguello Recreation Field
	16	LPCH Contractor Parking Lot
	17	Page Mill Road Construction Laydown
Annual Report 13(2012-2013)	18	Galvez Parking Lot
	19	Lasuen Street Parking Lot
	20	Acorn Parking Lot
Annual Report 14 (2013-2014)	21	Searsville Parking Lot
Annual Report 15 (2014-2015)	22	Stanford Perimeter Trail
	23	Regional Storm Water Treatment Facility
	24	West Campus Detention Basin
	25	Lomita/Roth Parking Lot & Lomita Road
Annual Report 16 (2015-2016)	26	Galvez and Serra St Parking Lot
	27	Palo Lot (laydown)
	28	Galvez Roundabout
	29	Via Ortega South
Annual Report 17 (2016-2017)	30	Stanford Golf Course Renovation

Note: These are reported at the time of completion. These are grading projects that were not associated with construction of academic or housing square footage.



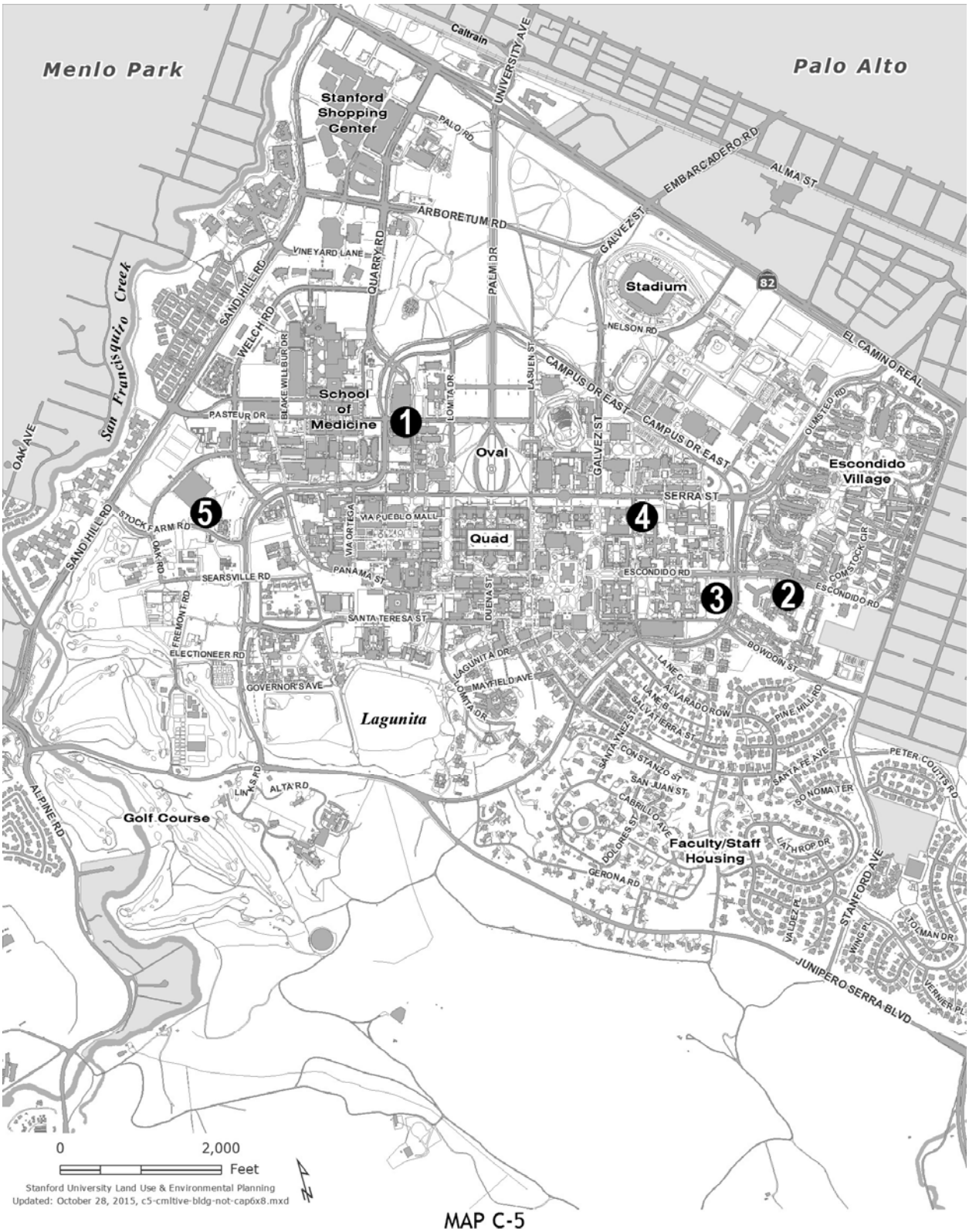
MAP C-4
CUMULATIVE COMPLETED GRADING PROJECTS

KEY TO MAP C-5
ANNUAL REPORT 1 THROUGH ANNUAL REPORT 17
CUMULATIVE BUILDING PROJECTS THAT DO NOT AFFECT BUILDING AREA CAP*

				Applicable Category		
Applicable GUP Condition:				**A.2.a**	**A.2.b**	**A.3**
Fiscal year	**Map No.**	**Project**	**Size (sq. ft.)**	**1989 GUP (sq. ft.)**	**Temporary Surge Space (sq. ft.)**	**Community Childcare Center (sq. ft.)**
Annual Report 1 (2000-01)		None				
Annual Report 2 (2001-02)	1	Lokey Lab	85,063	85,063		
		Demolish Chem Storage	(2,441)	(2,441)		
		Demolish Shocktube Lab for ME	(929)	(929)		
		CCSC Modular Replacement	768			768
Annual Report 3 (2002-03)		None				
Annual Report 4 (2003-2004)		Maples Surge Trailers	2,688		2,688	
	2	Graduate Community Center	12,000			12,000
		CSLI/EPGY	8,270	8,270		
Annual Report 5 (2004-2005)	3	Wilbur Modular Ext.	27,360		27,360	
		Building 500	2,266	2,266		
		Maples Surge	(2,688)		(2,688)	
		Varian Surge	3,050		3,050	
Annual Report 6 (2005-2006)	3	Wilbur Modular Removal	(27,360)		(27,360)	
	4	Old Union – Serra	21,495		21,495	
		Old Union – Lomita	7,680		7,680	
Annual Report 7 (2006 – 2007)		Old Union – Lomita Removed	(7,680)		(7,680)	
		Durand Surge (formally Varian Surge)	3,050			
		Tower House Rehabilitation	3,241			3,241
Annual Report 8 (2007 – 2008)		Black Community Service Center Addition	2,500			2,500

KEY TO MAP C-5
ANNUAL REPORT 1 THROUGH ANNUAL REPORT 17
CUMULATIVE BUILDING PROJECTS THAT DO NOT AFFECT BUILDING AREA CAP*

				Applicable Category		
Applicable GUP Condition:				**A.2.a**	**A.2.b**	**A.3**
Fiscal year	**Map No.**	**Project**	**Size (sq. ft.)**	**1989 GUP (sq. ft.)**	**Temporary Surge Space (sq. ft.)**	**Community Childcare Center (sq. ft.)**
		GSB Modulars	3,840		3,840	
		SCRA Sports Complex	3,701			3,701
		Demolish old SCRA complex	(2,617)			(2,617)
		Madera Grove Childcare Center (Acorn Building)	8,354			8,354
Annual Report 9 (2008-2009)		Recalculation of AR 1 - 8	197			197
Annual Report 10 (2009-2010)		None				
Annual Report 11 (2010-2011)		Welch Road modulars	4,030		4,030	
		GSB Modular demolition	(3,840)		(3,840)	
		Madera Gove Childcare Center (Mulberry Building)	8,218			8,218
Annual Report 12 (2011-2012)	5	Temporary Child Care Facility	10,560		10,560	
Annual Report 13 (2012-2013)	4	Encina Modulars Trailer demolition (Old Union – Serra)	(21,495)		(21,495)	
		Cowell Lot Construction Trailers	2,584		2,584	
Annual Report 14 (2013-2014)		None				
Annual Report 15 (2014-2015)		Varian Surge (double-counted in AR7)	(3,050)			
		Extension of Temporary Child Care Facility	0 (already counted in AR 12)		0 (already counted in AR 12)	
Annual Report 16 (2015-2016)		Demolition of 315 Campus Dr Modulars (also known as Varian Surge or Durand Surge)	(3,050)		(3,050)	
Annual Report 17 (2016-2017)		1215 Welch Rd Modulars (C, D, E) demolition	(4,030)		(4,030)	
Cumulative Net Square Feet:			**149,795**	**92,229**	**21,204**	**36,362**



MAP C-5
CUMULATIVE BUILDING PROJECTS THAT DO NOT AFFECT BUILDING AREA CAP
(GREATER THAN 10,000GSF)

Appendix D
Summary Report of Traffic Monitoring, 2001-2017

Appendix D
Summary of Traffic Monitoring

The following tables summarize Stanford Traffic Monitoring to date. The requirements for establishment of the traffic baseline and performing annual comparisons to the baseline are contained within the December 2000 Stanford Community Plan/General Use Permit (GUP)/Environmental Impact Report (EIR) and within the 2000 Stanford General Use Permit.

Methodology for Evaluating Traffic Impacts

The GUP *Condition of Approval G.7* outlined the methodology for gathering baseline counts and monitoring. The process can be summarized as follows:

- Peak hour traffic is counted at least three times per year for a two-week period each time. The three counts shall be averaged to determine the annual traffic level.
- All counts are recorded at the 16 campus entry and exit points, which form a "cordon" around the campus.
- During the count, license plate numbers are recorded for each entering and exiting vehicle to determine the amount of non-campus traffic.
- Cordon volumes are adjusted for parking lots within the cordon used by the hospital (these volumes are subtracted from the cordon line counts) and parking lots outside the cordon used by the university (these volumes are added to the cordon line counts).
- A peak hour is then established for the campus based on the counts, adjusted for cut-through and parking lot location.

Condition of Approval G.4 defines the "no net new commute trips" standard as no increase in automobile trips during peak commute times in the peak commute direction, as counted at a defined cordon location around the central campus.

Condition of Approval G.6 defines the peak commute directions as entering the campus in the morning peak commute period and leaving the campus in the evening commute period. The peak commute period is defined as the one-hour period of time between 7 AM and 9 AM and again between 4 PM and 6 PM with the highest volume of traffic, as defined by the counts. Therefore, the two peak hours are considered to be independent events.

Condition of Approval G.9 states that the Planning Office shall monitor the cordon count volumes using the procedures described above. If the cordon counts, as modified by trip reduction credits, exceed the baseline volumes as calculated by the procedures outlined above by 1 percent or more for any two out of three consecutive years, mitigation of impacts to intersections identified in the December 2000 Stanford Community Plan/GUP EIR will be required. Since an increase in traffic during the AM peak hour is independent from an increase in traffic during the PM peak hour, an increase in traffic for two out of three years in one peak hour would trigger the additional elements of the monitoring program without a change, or even with a decrease in the other peak hour. Also a significant increase during one year in the AM and a sufficient increase in the PM for the following year would not trigger additional mitigation.

Appendix D
Summary of Traffic Monitoring

Monitoring Results

Annual Report 1 - Year 2001 – Baseline

The Stanford Traffic Monitoring began in Spring 2001. Monitoring counts are done each calendar year. The 2001 counts serve as the Baseline to which future years are compared.

Annual Report 2 - Year 2002

Two adjustments were made to the 2002 counts that are summarized in this report. On the basis of results of the 2002 counts, following the adjustments, it was concluded that the counts were below the threshold that would indicate an increase in traffic volumes. Stanford thus was found to be in compliance with the "no net new commute trips" GUP requirement for 2002.

An update to the original 2002 Monitoring Report was issued on October 15, 2003. Following the publication of the July 2003 report, Stanford and the County separately analyzed traffic data for the Stanford Homecoming week. Based on consultation with Stanford and independent analysis of County consultant traffic data, the County determined that data collected for the week of Homecoming should not be included in the comparison data set. The rationale for this decision was that Homecoming had been ongoing for years, was not included in the Baseline counts, and would continue to be an annual event. The County communicated to Stanford that other future "large events" would not be excluded from future counts. The revised analysis substituted the week of October 28, 2002, for the previously counted week of October 14, 2002. The results of this change are noted in the table below as the first revision.

Subsequent to the first adjustment to the 2002 Monitoring Report discussed above, Stanford informed the County that additional Marguerite Shuttle runs had been introduced to campus since the completion of the Baseline counts, and thus counted in the Year 1 (2002) comparison counts. This resulted in an increase of 12 vehicles in each peak hour. County staff determined that these new bus lines should be subtracted from the comparison count. The resultant counts are noted in the table below as the second revision.

Annual Report 3- Year 2003

The results of the 2003 counts were also below the threshold that would indicate an increase in traffic volumes. Stanford thus was also found to be in compliance with the "no net new commute trips" requirement for 2003.

Annual Report 4- Year 2004

The results of the 2004 counts were below the threshold that would indicate an increase in traffic volumes for the inbound AM peak hour traffic. However, the 2004 count for the outbound PM peak hour traffic exceeded the threshold by 51 vehicles. On March 2, 2005 Stanford submitted a 2004 Trip Credit Report that was reviewed by Korve Engineering. This report documented a credit of 66 for the increase in the number of bus trips across the cordon points and the number of transit passengers served outside the cordon area in the PM peak hour between the 2001 baseline and 2004. Most of the trip credits claimed are for passengers (primarily Stanford Hospital employees) getting on the shuttle outside the cordon area and traveling to the Palo Alto Caltrain station. Factoring in the trip credit of 66 trips Stanford did not exceed the no net new commute trip standard based on the 2004 Monitoring Program.

Annual Report 5 - Year 2005

The results of the 2005 Monitoring Report concluded that the adjusted AM inbound count totaled 3,383 vehicles. This represented an increase of 64 vehicles, which fell within the 90% confidence interval and did not represent a significant AM inbound traffic increase. The PM outbound count totaled 3,735 vehicles which was an increase of 289 vehicles from the baseline, which is above the 90% confidence interval by 180 vehicles and above the 1% increase trigger by 144 vehicles. Stanford applied for 182 trip credits for the 2005 monitoring period, consistent with the Cordon Count Credit Guidelines.

Annual Report 6 - Year 2006

The 2006 Monitoring Report concluded that the adjusted AM inbound count totaled 3,048 vehicles. This represented a decrease of 271 vehicles from the baseline and does not represent a significant AM inbound traffic increase. The PM outbound count totaled 3,427 vehicles, which was a decrease of 19 vehicles from the baseline, which is 128 vehicles below the 90 percent confidence interval and 164 vehicles below the 1 percent established trigger. Stanford submitted a 2006 Trip Credit Report showing 223.36 trip credits – this report has been received and confirmed by the County's traffic consultant.

Annual Report 7 - Year 2007

The 2007 Monitoring Report concluded that the adjusted AM inbound count totaled 3,058 vehicles, which was a decrease of 261 vehicles from the baseline, this decrease falls below the 90 percent confidence interval by 141 vehicles and did not represent a significant AM inbound traffic increase. The PM outbound count totaled 3,494 vehicles, which was an increase of 48 vehicles from the baseline counts. This increase falls below the 90 percent confidence interval by 61 vehicles and 97 vehicles below the 1 percent established trigger. Stanford submitted a 2007 Trip Credit Report showing 201 trip credits – this report has been received and confirmed by the County's traffic consultant.

Annual Report 8 - Year 2008

The 2008 Monitoring Report concluded that the adjusted AM inbound count totaled 3,020 vehicles, which was a decrease of 299 vehicles from the baseline and did not represent a significant AM inbound traffic increase. The PM outbound count totaled 3,460 vehicles, which was an increase of 14 vehicles above the baseline count and did not represent a significant PM outbound traffic increase. Stanford submitted a 2008 Trip Credit Report showing 240 trip credits – this report has been received and confirmed by the County's traffic consultant.

Annual Report 9 - Year 2009

The 2009 Monitoring Report concluded that the adjusted AM inbound count totaled 2,840 vehicles, which was a decrease of 479 vehicles from the baseline and did not represent a significant AM inbound traffic increase. The PM outbound count totaled 3,227 vehicles, which was a decrease of 219 vehicles below the baseline count and did not represent a significant PM outbound traffic increase.

Annual Report 10 - Year 2010

The 2010 Monitoring Report concluded that the adjusted AM inbound count totaled 2,921 vehicles, which was a decrease of 553 vehicles from the baseline and did not represent a significant AM inbound traffic increase. The PM outbound count totaled 3,459 vehicles, which was a decrease of 132 vehicles below the baseline count and did not represent a significant PM outbound traffic increase.

Annual Report 11 - Year 2011

The 2011 Monitoring Report concluded that the adjusted AM inbound count totaled 3,081 vehicles, which was a decrease of 393 vehicles from the baseline and did not represent a significant AM inbound traffic increase. The PM outbound count totaled 3,743 vehicles, which was a decrease of 51 vehicles below the baseline count, after the trip credit was applied, and did not represent a significant PM outbound traffic increase.

Annual Report 12 - Year 2012

The 2012 Monitoring Report concluded that the adjusted AM inbound count totaled 3,287 vehicles, which was a decrease of 187 vehicles from the baseline and did not represent a significant AM inbound traffic increase. The PM outbound count totaled 3,590 vehicles, which was a decrease of 302 vehicles below the baseline count, after the trip credit was applied, and did not represent a significant PM outbound traffic increase.

Annual Report 13 - Year 2013

The 2013 Monitoring Report concluded that the adjusted morning (AM) inbound count totaled 3,332 vehicles which was an increase of 13 vehicles from the baseline, which falls within the 90% confidence interval, and does not represent a significant AM inbound traffic increase. The afternoon (PM) outbound count totaled 3,744 vehicles, which is an increase of 298 vehicles from the baseline. However, after applying 339 trip credits submitted by Stanford and verified by the County, the PM peak hour outbound traffic is 186 trips below the 1% established trigger.

Annual Report 14 - Year 2014

The 2014 Monitoring Report concluded that the adjusted morning (AM) inbound count totaled 3,336 vehicles which was an increase of 17 vehicles from the baseline, which falls within the 90% confidence interval, and does not represent a significant AM inbound traffic increase. The afternoon (PM) outbound count totaled 3,696 vehicles, which is an increase of 250 vehicles from the baseline. However, after applying 402 trip credits submitted by Stanford and verified by the County, the PM peak hour outbound traffic is 297 trips below the 1% established trigger.

Annual Report 15 - Year 2015

The 2015 Monitoring Report concluded that the adjusted morning (AM) inbound count totaled 3,142 vehicles which was a decrease of 297 vehicles from the baseline, which falls below the 90% confidence interval, and does not represent a significant AM inbound traffic increase. The afternoon (PM) outbound count totaled 3,257 vehicles, which is a decrease of 298 vehicles from the baseline, and also falls below the 90% confidence interval and does not represent a significant PM outbound traffic increase. After applying 844 trip credits submitted by Stanford and verified by the County, the PM peak hour outbound traffic is 1,178 trips below the 1% established trigger.

Appendix D
Summary of Traffic Monitoring

Annual Report 16 - Year 2016

The 2016 Monitoring Report concluded that the adjusted morning (AM) inbound count totaled 3,170 vehicles which was a decrease of 149 vehicles from the baseline, which falls below the 90% confidence interval, and does not represent a significant AM inbound traffic increase. The afternoon (PM) outbound count totaled 3,316 vehicles, which is a decrease of 130 vehicles from the baseline, and also falls below the 90% confidence interval and does not represent a significant PM outbound traffic increase. After applying 543 trip credits submitted by Stanford and verified by the County, the PM peak hour outbound traffic is 818 trips below the 1% established trigger.

Annual Report 17 - Year 2017

The 2017 Monitoring Report concluded that the adjusted morning (AM) inbound count totaled 3,202 vehicles which was a decrease of 117 vehicles from the baseline, which falls below the 90% confidence interval, and does not represent a significant AM inbound traffic increase. The afternoon (PM) outbound count totaled 3,324 vehicles, which is a decrease of 122 vehicles from the baseline, and also falls below the 90% confidence interval and does not represent a significant PM outbound traffic increase. Therefore, Stanford met the No Net New Commute Trips standard. Although Stanford programs removed non-Stanford trips from intersections in the local impact area, Stanford chose not to submit trip credits to the County this year.

Appendix D
Summary of Traffic Monitoring

2001 Baseline

Original Publication Date: **July 2002**
Updated Publication Date: **October 15, 2003**

Changes between the July 2002 and October 2003 reports were minor editorial corrections.

Inbound AM:	
Adjusted Average 2002 Count	3,319
90% Confidence Interval (2001)	+/- 120
Significant Traffic Increase (2001)	3,439
1% Increase Trigger (2001)	3,474
Outbound PM:	
Adjusted Average 2002 Count	3,446
90% Confidence Interval (2001)	+/- 109
Significant Traffic Increase (2001)	3,555
1% Increase Trigger (2001)	3,591

2002 Monitoring Report

Original Publication Date: **December 2002**
Updated Publication Date: **October 15, 2003**

Inbound AM:	**Original Data**	**First Revision Data**	**Second Revision Data**
Adjusted Average 2002 Count	3,390	3,287	3,275
Baseline-established 90% Confidence Interval (2001)	+/-120	+/-120	+/-120
Baseline-established Significant Traffic Increase (2001)	3,439	3,439	3,439
Baseline-established 1% Increase Trigger (2001)	3,474	3,474	3,474
Result	-84	-187	-199

Outbound PM:	**Original Data**	**First Revision Data**	**Second Revision Data**
Adjusted Average 2002 Count	3,678	3,598	3,586
Baseline-established 90% Confidence Interval (2001)	+/-109	+/-109	+/-109
Baseline-established Significant Traffic Increase (2001)	3,555	3,555	3,555
Baseline-established 1% Increase Trigger (2001)	3,591	3,591	3,591
Result	+87	+7	-5

Appendix D
Summary of Traffic Monitoring

2003 Monitoring Report

Original Publication Date: **January 29, 2004**

The following table summarizes the results of traffic monitoring for 2003.

Inbound AM:	
Adjusted Average 2003 Count	3,413
Baseline-established 90% Confidence Interval (2001)	+/- 120
Baseline-established Significant Traffic Increase (2001)	3,439
Baseline-established 1% Increase Trigger (2001)	3,474
Result (falls below the 90% Confidence Interval by 26 vehicles)	-26
Result (falls below the 1% Trigger by 61 vehicles)	-61
Outbound PM:	
Adjusted Average 2003 Count	3,476
Baseline-established 90% Confidence Interval (2001)	+/- 109
Baseline-established Significant Traffic Increase (2001)	3,555
Baseline-established 1% Increase Trigger (2001)	3,591
Result (falls below the 90% Confidence Interval by 79 vehicles)	-79
Result (falls below the 1% Trigger by 115 vehicles)	-115

2004 Monitoring Report

Original Publication Date: **January 18, 2005**

The following table summarizes the results of traffic monitoring for 2004.

Inbound AM:	
Adjusted Average 2004 Count	3,176
Baseline-established 90% Confidence Interval (2001)	+/- 120
Baseline-established Significant Traffic Increase (2001)	3,439
Baseline-established 1% Increase Trigger (2001)	3,474
Result (falls below the 90% Confidence Interval by 263 vehicles)	-263
Result (falls below the 1% Trigger by 298 vehicles)	-298
Outbound PM:	
Adjusted Average 2004 Count	3,642
Baseline-established 90% Confidence Interval (2001)	+/- 109
Baseline-established Significant Traffic Increase (2001)	3,555
Baseline-established 1% Increase Trigger (2001)	3,591
Result (exceeds the 90% Confidence Interval by 87 vehicles)	+87
Result (exceeds the 1% Trigger by 51 vehicles)	+51
2004 Trip Credit	-66
Result with Trip Credit (falls below the 1% Trigger by 15 vehicles)	-15

Appendix D
Summary of Traffic Monitoring

2005 Monitoring Report

Original Publication Date: **December 21, 2005**

The following table summarizes the results of traffic monitoring for 2005.

Inbound AM:	
Adjusted Average 2005 Count	3,383
Baseline-established 90% Confidence Interval (2001)	+/- 120
Baseline-established Significant Traffic Increase (2001)	3,439
Baseline-established 1% Increase Trigger (2001)	3,474
Result (Falls below the 90% Confidence Interval by 56 vehicles)	-56
Result (Falls below the 1% Trigger by 91 vehicles)	-91
Outbound PM:	
Adjusted Average 2005 Count	3,735
Baseline-established 90% Confidence Interval (2001)	+/- 109
Baseline-established Significant Traffic Increase (2001)	3,555
Baseline-established 1% Increase Trigger (2001)	3,591
Result (exceeds the 90% Confidence Interval by 180 vehicles)	+180
Result (exceeds the 1% Trigger by 144 vehicles)	+144
2005 Trip Credit	-174
Result with Trip Credit (falls below the 1% trigger by 30 vehicles)	-30

2006 Monitoring Report

Original Publication Date: **November 20, 2006**

The following table summarizes the results of traffic monitoring for 2006.

Inbound AM:	
Adjusted Average 2006 Count	3,048
Baseline-established 90% Confidence Interval (2001)	+/- 120
Baseline-established Significant Traffic Increase (2001)	3,439
Baseline-established 1% Increase Trigger (2001)	3,474
Result (falls below the 90% confidence interval by 391 vehicles)	-391
Result (falls below the 1% increase trigger by 426 vehicles)	-426
Outbound PM:	
Adjusted Average 2006 Count	3,427
Baseline-established 90% Confidence Interval (2001)	+/- 109
Baseline-established Significant Traffic Increase (2001)	3,555
Baseline-established 1% Increase Trigger (2001)	3,591
Result (falls below the 90% confidence interval by 128 vehicles)	-128
Result (falls below the 1% trigger by 164 vehicles)	-164

Appendix D
Summary of Traffic Monitoring

2007 Monitoring Report

Original Publication Date: **November 2007**

The following table summarizes the results of traffic monitoring for 2007.

Inbound AM:

Adjusted Average 2007 Count	3,058
Baseline-established 90% Confidence Interval (2001)	+/- 120
Baseline-established Significant Traffic Increase (2001)	3,439
Baseline-established 1% Increase Trigger (2001)	3,474
Result (falls below the 90% confidence interval by 381 vehicles)	-381
Result (falls below the 1% increase trigger by 416 vehicles)	-416

Outbound PM:

Adjusted Average 2007 Count	3,494
Baseline-established 90% Confidence Interval (2001)	+/- 109
Baseline-established Significant Traffic Increase (2001)	3,555
Baseline-established 1% Increase Trigger (2001)	3,591
Result (falls below the 90% confidence interval by 61 vehicles)	-61
Result (falls below the 1% trigger by 97 vehicles)	-97

2008 Monitoring Report

Original Publication Date: **November 2008**

The following table summarizes the results of traffic monitoring for 2008.

Inbound AM:

Adjusted Average 2008 Count	3,020
Baseline-established 90% Confidence Interval (2001)	+/- 120
Baseline-established Significant Traffic Increase (2001)	3,439
Baseline-established 1% Increase Trigger (2001)	3,474
Result (falls below the 90% confidence interval by 419 vehicles)	-419
Result (falls below the 1% increase trigger by 454 vehicles)	-454

Outbound PM:

Adjusted Average 2008 Count	3,460
Baseline-established 90% Confidence Interval (2001)	+/- 109
Baseline-established Significant Traffic Increase (2001)	3,555
Baseline-established 1% Increase Trigger (2001)	3,591
Result (falls below the 90% confidence interval by 95 vehicles)	-95
Result (falls below the 1% trigger by 131 vehicles)	-131

Appendix D
Summary of Traffic Monitoring

2009 Monitoring Report

Original Publication Date: **November 2009**

The following table summarizes the results of traffic monitoring for 2009.

Inbound AM:	
Adjusted Average 2009 Count	2,840
Baseline-established 90% Confidence Interval (2001)	+/- 120
Baseline-established Significant Traffic Increase (2001)	3,439
Baseline-established 1% Increase Trigger (2001)	3,474
Result (falls below the 90% confidence interval by 599 vehicles)	-599
Result (falls below the 1% increase trigger by 634 vehicles)	-634
Outbound PM:	
Adjusted Average 2009 Count	3,227
Baseline-established 90% Confidence Interval (2001)	+/- 109
Baseline-established Significant Traffic Increase (2001)	3,555
Baseline-established 1% Increase Trigger (2001)	3,591
Result (falls below the 90% confidence interval by 328 vehicles)	-328
Result (falls below the 1% trigger by 364 vehicles)	-364

2010 Monitoring Report

Original Publication Date: **December 2010**

The following table summarizes the results of traffic monitoring for 2010

Inbound AM:	
Adjusted average 2010 count	2,921
Baseline-established 90% confidence interval (2001)	+/- 120
Baseline-established significant traffic increase (2001)	3,439
Baseline-established 1% increase trigger (2001)	3,474
Result (falls below the 90% confidence interval by 518 vehicles)	-518
Result (falls below the 1% increase trigger by 553 vehicles)	-553
Outbound PM:	
Adjusted average 2010 count	3,459
Baseline-established 90% confidence interval (2001)	+/- 109
Baseline-established significant traffic increase (2001)	3,555
Baseline-established 1% increase trigger (2001)	3,591
Result (falls below the 90% confidence interval by 96 vehicles)	-96
Result (falls below the 1% increase trigger by 132 vehicles)	-132

Appendix D
Summary of Traffic Monitoring

2011 Monitoring Report

Original Publication Date: **December 2011**

The following table summarizes the results of traffic monitoring for 2011

Inbound AM:	
Adjusted average 2011 count	3,081
Baseline-established 90% confidence interval (2001)	+/- 120
Baseline-established significant traffic increase (2001)	3,439
Baseline-established 1% increase trigger (2001)	3,474
Result (falls below the 90% confidence interval by 358 vehicles)	-358
Result (falls below the 1% increase trigger by 393 vehicles)	-393
Outbound PM:	
Adjusted average 2011 count	3,743
Baseline-established 90% confidence interval (2001)	+/- 109
Baseline-established significant traffic increase (2001)	3,555
Baseline-established 1% increase trigger (2001)	3,591
Result (exceeds the 90% confidence interval by 188 vehicles)	+188
Result (exceeds the 1% increase trigger by 152 vehicles)	+152
2011 Trip Credit	-203
Result with Trip Credit (falls below the 1% trigger by 51 vehicles)	-51

2012 Monitoring Report

Original Publication Date: **December 2012**

The following table summarizes the results of traffic monitoring for 2012

Inbound AM:	
Adjusted average 2012 count	3,287
Baseline-established 90% confidence interval (2001)	+/- 120
Baseline-established significant traffic increase (2001)	3,439
Baseline-established 1% increase trigger (2001)	3,474
Result (falls below the 90% confidence interval by 152 vehicles)	-152
Result (falls below the 1% increase trigger by 187 vehicles)	-187
Outbound PM:	
Adjusted average 2012 count	3,590
Baseline-established 90% confidence interval (2001)	+/- 109
Baseline-established significant traffic increase (2001)	3,555
Baseline-established 1% increase trigger (2001)	3,591
Result (exceeds the 90% confidence interval by 35 vehicles)	+35
Result (falls below the 1% increase trigger by 1 vehicle)	-1
2012 Trip Credit	-301
Result with Trip Credit (falls below the 1% trigger by 302 vehicles)	-302

Appendix D
Summary of Traffic Monitoring

2013 Monitoring Report

Original Publication Date: **March 2014**

The following table summarizes the results of traffic monitoring for 2013

Inbound AM:	
Adjusted average 2013 count	3,332
Baseline-established 90% confidence interval (2001)	+/- 120
Baseline-established significant traffic increase (2001)	3,439
Baseline-established 1% increase trigger (2001)	3,474
Result (falls below the 90% confidence interval by 107 vehicles)	-107
Result (falls below the 1% increase trigger by 142 vehicles)	-142
Outbound PM:	
Adjusted average 2013 count	3,744
Baseline-established 90% confidence interval (2001)	+/- 109
Baseline-established significant traffic increase (2001)	3,555
Baseline-established 1% increase trigger (2001)	3,591
Result (falls above the 90% confidence interval by 189 vehicles)	+189
Result (falls above the 1% increase trigger by 152 vehicles)	+153
2013 Trip Credit	-339
Result with Trip Credit (falls below the 1% trigger by 51 vehicles)	-186

2014 Monitoring Report

Original Publication Date: **April 2015**

The following table summarizes the results of traffic monitoring for 2014

Inbound AM:	
Adjusted average 2014 count	3,336
Baseline-established 90% confidence interval (2001)	+/- 120
Baseline-established significant traffic increase (2001)	3,439
Baseline-established 1% increase trigger (2001)	3,474
Result (falls below the 90% confidence interval by 103 vehicles)	-103
Result (falls below the 1% increase trigger by 138 vehicles)	-138
Outbound PM:	
Adjusted average 2014 count	3,696
Baseline-established 90% confidence interval (2001)	+/- 109
Baseline-established significant traffic increase (2001)	3,555
Baseline-established 1% increase trigger (2001)	3,591
Result (exceeds the 90% confidence interval by 141 vehicles)	+141
Result (exceeds the 1% increase trigger by 105 vehicles)	+105
2014 Trip Credit	-402
Result with Trip Credit (falls below the 1% trigger by 297 vehicles)	-297

Appendix D
Summary of Traffic Monitoring

2015 Monitoring Report

Original Publication Date: **February 2016**

The following table summarizes the results of traffic monitoring for 2015

Inbound AM:	
Adjusted average 2015 count	3,142
Baseline-established 90% confidence interval (2001)	+/- 120
Baseline-established significant traffic increase (2001)	3,439
Baseline-established 1% increase trigger (2001)	3,474
Result (falls below the 90% confidence interval by 297 vehicles)	-297
Result (falls below the 1% increase trigger by 332 vehicles)	-332
Outbound PM:	
Adjusted average 2015 count	3,257
Baseline-established 90% confidence interval (2001)	+/- 109
Baseline-established significant traffic increase (2001)	3,555
Baseline-established 1% increase trigger (2001)	3,591
Result (falls below the 90% confidence interval by 298 vehicles)	-298
Result (falls below the 1% increase trigger by 334 vehicles)	-334
2015 Trip Credit	-844
Result with Trip Credit (falls below the 1% trigger by 1,178 vehicles)	-1,178

2016 Monitoring Report

Original Publication Date: **March 2017**

The following table summarizes the results of traffic monitoring for 2016

Inbound AM:	
Adjusted average 2016 count	3,170
Baseline-established 90% confidence interval (2001)	+/- 120
Baseline-established significant traffic increase (2001)	3,439
Baseline-established 1% increase trigger (2001)	3,474
Result (falls below the 90% confidence interval by 269 vehicles)	-269
Result (falls below the 1% increase trigger by 304 vehicles)	-304
2016 Trip Credit	-461
Result with Trip Credit (falls below the 1% trigger by 765 vehicles)	-765
Outbound PM:	
Adjusted average 2016 count	3,316
Baseline-established 90% confidence interval (2001)	+/- 109
Baseline-established significant traffic increase (2001)	3,555
Baseline-established 1% increase trigger (2001)	3,591
Result (falls below the 90% confidence interval by 239 vehicles)	-239
Result (falls below the 1% increase trigger by 275 vehicles)	-275
2016 Trip Credit	-543
Result with Trip Credit (falls below the 1% trigger by 818 vehicles)	-818

Appendix D
Summary of Traffic Monitoring

2017 Monitoring Report

Original Publication Date: **January 2018**

The following table summarizes the results of traffic monitoring for 2017

Inbound AM:	
Adjusted average 2017 count	3,202
Baseline-established 90% confidence interval (2001)	+/- 120
Baseline-established significant traffic increase (2001)	3,439
Baseline-established 1% increase trigger (2001)	3,474
Result (falls below the 90% confidence interval by 237 vehicles)	-237
Result (falls below the 1% increase trigger by 272 vehicles)	-272
2017 Trip Credit	-0
Result with Trip Credit	-0
Outbound PM:	
Adjusted average 2016 count	3,324
Baseline-established 90% confidence interval (2001)	+/- 109
Baseline-established significant traffic increase (2001)	3,555
Baseline-established 1% increase trigger (2001)	3,591
Result (falls below the 90% confidence interval by 231 vehicles)	-231
Result (falls below the 1% increase trigger by 267 vehicles)	-267
2017 Trip Credit	-0
Result with Trip Credit	-0

Appendix D
Summary of Traffic Monitoring

Definitions

The following definitions are provided to assist in understanding for procedures of the Stanford Traffic Monitoring.

Adjusted Traffic – The raw traffic counts defined below are adjusted to add in University traffic that does not cross the cordon, and to subtract hospital traffic that does cross the cordon, and cut-through traffic through the campus that is not university related. The adjusted traffic volumes are used to compare the Baseline traffic volumes to subsequent year volumes to assess potential changes in commute traffic volumes.

AM Peak Hour – The 60-minute time period with the highest volume of traffic within the 2-hour AM Peak Period. During the AM Peak Period, traffic counts are aggregated by 15-minute increments. The AM Peak Hour is the highest four consecutive 15-minute intervals during the Peak Period for all 16 entrance/exit points combined.

AM Peak Period – The 2-hour period beginning at 7:00 AM and ending at 9:00 AM. The AM Peak Hour is calculated for traffic volumes collected during the AM Peak Period.

Average Count – Traffic data are collected for 16 entry and exit points. The entering data are averaged for the AM peak and the existing data are averaged for the PM peak. The average counts are used to compare one year to a subsequent year to determine if a change in traffic volumes has occurred.

Baseline – The Baseline traffic data are the counts from calendar year 2001, the first year of monitoring after approval of the Stanford GUP in 2000. Subsequent year's counts are compared to the Baseline to determine if the GUP condition requiring no net new commute trips is being satisfied.

Cordon Line – A cordon line is an imaginary line that completely encircles an area and crosses all roads leading into and out of the area. By counting traffic volumes on the cordon by direction, the amount of traffic entering the area and exiting the area can be determined. For Stanford traffic monitoring, the cordon line surrounds the campus and crosses all entry and exit roads, such that all vehicles entering and exiting the campus can be counted.

License Plate Survey – The last four digits of the license plates of each vehicle entering and exiting the campus is recorded for one day during each week of traffic counts. The time period during which each identified vehicles enters and exits the campus cordon is also recorded. If an entering vehicle's license plate matches an exiting vehicle's license plate with a 15-minute interval, that vehicle is assumed to represent a cut-through trip (i.e. not campus-related) and is subtracted from the total traffic count for Stanford since it does not represent traffic related to Stanford. In order for a vehicle trip to be identified as "cut-through", it must be identified by license plate match as having entered via one roadway and exited via another. If a car is identified by license plate match as using the same entering and exiting roadway, the trip purpose is assumed to be to drop-off a passenger within the campus, and the trip is assumed to be Stanford related and is not subtracted from the trip count total.

PM Peak Hour – The 60-minute time period during which the highest volume of traffic is counted, within the 2-hour PM Peak Period. During the Peak Period, traffic counts are aggregated by 15-

minute increments. The PM Peak Hour is the highest four consecutive 15-minute interval during the Peak Period for all 16 entrance/exit points combined.

PM Peak Period – The 2-hour period beginning at 4:00 PM and ending at 6:00 PM. The PM Peak Hour is calculated for traffic volumes collected during the PM Peak Period.

Raw Data – The total traffic volumes counted at the cordon line before adjustments are made. Adjustments are made to the raw data to subtract hospital parking within the cordon, and cut-through traffic from the total count, and to add university parking outside the cordon to the total count, in order to accurately account for traffic attributable to Stanford University.

Significant Traffic Increase – In comparing the change in traffic volumes between the Baseline and subsequent years, only statistically significant changes are considered. The following parameters define how a significant traffic increase is calculated:

- Ninety Percent Confidence Interval – A confidence interval is calculated to determine if a subsequent set of data is statistically different from the Baseline data. The County selected a 90 percent confidence interval as the significance threshold. Based on the daily variation in the Baseline counts, the 90 percent confidence interval for the AM peak hour is +/- 120 vehicles. The 90 percent confidence interval for the PM peak hour is +/- 109 vehicles. Therefore, if a subsequent year count exceeds the Baseline count by more than 120 vehicles, there is a 90 percent likelihood that the increase in traffic volumes has increased significantly.
- One Percent Increase Trigger – The 1 percent trigger is a second criterion for identifying significant increases in traffic volume. Condition of Approval G.9 stipulates that if traffic volumes increase above the Baseline volumes by 1 percent or more in two out of three consecutive years, this will "trigger" a requirement for additional mitigation.

Trip Credits – *Condition of Approval G.8* specifies that the County will recognize and "credit" Stanford off-campus trip reduction efforts after the approval data of the GUP (December 12, 2000), but not before, within a specified area surrounding the campus. These credits can be used to offset a significant increase in peak hour traffic into and out of the campus. Specific guidelines have been established that define how credits can be applied. An example of a credit would be Stanford providing bus service to someone traveling from the Caltrain Station to the hospital. By reducing overall travel in the area around the campus, Stanford can receive a credit against increases in travel onto the campus.

Appendix E
Sustainability at Stanford Annual Report

Appendix E
Sustainability at Stanford Executive Summary

SUSTAINABLE STANFORD 2016-17 YEAR IN REVIEW

EXECUTIVE SUMMARY

Work at Stanford includes advancing sustainable operational practices for our campus, developing solutions to slow climate change and mitigate its effects, and engaging in the research and education that will result in improved understanding and future leadership to address the causes and effects of a warming planet. We undertake these efforts because we acknowledge the imperative."
– Stanford President Marc Tessier-Lavigne and Provost Persis Drell

Annual Highlights

Stanford remains steadfastly committed to its endeavor to lead by example in sustainability, and continues to reduce its environmental footprint while engaging the campus community to save resources and contribute to our imperative to address climate change. Our 2016-2017 performance underscores this commitment.

The university has undertaken major initiatives to reduce energy and water use, apply stringent environmental standards to all new buildings, encourage sustainable living, promote low-impact transportation, conserve natural resources, and decrease waste.

Responsible growth is both a priority and a tool for shaping the university's long-range strategic planning in support of the academic mission. The suite of efficiency and conservation programs implemented by the Department of Sustainability and Energy Management and its partners across campus illustrates the breadth of our commitment to reducing the footprint of every individual on campus. We continue to analyze the effectiveness of these sustainability programs and identify opportunities for further improvement.

Awards

- Stanford's achievements in sustainability-focused operations and academic research have been recognized by regional, national, and international organizations. The wide spectrum of Stanford's awards and commendations highlights the multifaceted nature of sustainability.

- In 2017, Stanford earned a **Platinum rating through the Sustainability Tracking, Assessment & Rating System (STARS)**, conducted by the Association for the Advancement of Sustainability in Higher Education (AASHE) in recognition of its sustainability achievements--making it one of only two higher education institutions in the world to reach this milestone. Its score of 85.74% is the highest of any submitting institution to date and reflects significant sustainability advancements such as the Stanford Energy System Innovations project and continual increases in sustainability-focused academic and engagement opportunities. Stanford's report is publicly available on the STARS website.

- In addition to earning Platinum, Stanford has also been recognized in the ***Princeton Review*'s Green Honor Roll** for the fifth consecutive year, ranking in the top ten on its 2018 Top 50 Green Colleges List.

Interdisciplinary Research and Sustainability Curricula

Stanford has long been a leader in cutting-edge research and innovative teaching on energy, natural resources, and environmental sustainability. Driven by a pioneering, entrepreneurial spirit and historic dedication to public service, Stanford is well positioned to find multi-disciplinary solutions to complex environmental challenges, creating a more livable planet and educating generations of scientific and policy leaders dedicated to the cause.

Over the years, the academic programs and initiatives in sustainability have achieved remarkable breadth, contributing to Stanford's international reputation for solving major environmental and energy-related challenges. Today, hundreds of laboratories, research centers, and student organizations at Stanford work to solve the most urgent challenges facing humanity, from food security and clean water to global warming and clean energy.

Greening of the Energy Supply

Stanford has taken bold steps to tackle climate change, perhaps the greatest environmental and socioeconomic challenge of our time, through one of the most innovative capital projects on campus to date. Stanford's Energy and Climate Action Plan uses a comprehensive, long-term approach to reduce campus greenhouse gas (GHG) emissions, finding a balance between the critical needs of climate action and energy production and the requirements inherent in operating a large university.

Stanford transformed its energy system through Stanford Energy System Innovations (SESI), transitioning the campus energy supply system from one based on fossil fuels, to an innovative electric heat recovery system, which results in a 68% reduction in total campus greenhouse gas emissions from peak levels by the end of 2017, and has earned international acclaim. Although developed independently by Stanford from 2009 to 2011, SESI may be the first large-scale example in the world of the technology roadmap for building heating and cooling recommended by the International Energy Agency, which the United Nations Environment Programme discussed in a comprehensive report on district-level implementation.

Expanded Water Conservation

Stanford's Water Resources and Civil Infrastructure group proactively manages available resources in multiple water systems to meet university needs while preserving ecological systems and vital resources for future generations.

In the face of the recent, long-term drought the university expanded its sustainable water practices and conservation efforts, which reduced potable water consumption by 49% since 2001, thanks to considerable savings gained from Stanford Energy System Innovations (SESI) and notable efforts from all major campus water users. *Over the course of three years of the worst drought on record, the Stanford community pulled together and saved over 800 million gallons of domestic and non-potable water.*

Appendix E
Sustainability at Stanford Executive Summary

While the drought officially ended with the wettest year on record in 2017, water conservation remains a critical way of life in California, and the university will continue to encourage sustainable water use as dry summers and cyclical droughts persist.

Leadership in Building Design and Construction

The built environment at Stanford remains one of the exciting opportunities for sustainability. Stanford designs and creates buildings that provide healthy, productive learning environments while achieving optimal performance in daily operations. The Department of Project Management (DPM) oversees major construction on campus.

The university has embraced a new method of benchmarking that allows for a more holistic, and also more rigorous, method for designing high-performance buildings. The university follows whole-building energy performance targets—adding standards above the increasingly stringent California Title 24— derived specifically for each new building coming online that contributes to the overall campus inventory. In this way, each building is evaluated based on its own best possible performance as well as maintaining or improving the campus average of LEED Gold equivalency.

Robust Energy Efficiency Programs

The Facilities Energy Management (FEM) team coordinates with facilities stakeholders across campus to reduce energy use in existing buildings and incorporate energy efficiency best practices into all new buildings. FEM manages multiple programs that offer technical and financial assistance to facility managers, department leads, and building occupants to encourage implementation of energy efficiency projects, and the group works to ensure high-performance opportunities are being realized and maintained as designed.

As of 2017, Stanford has reduced energy intensity on campus 25% from a 2000 baseline. While a significant portion of this reduction is due to implementation of the Stanford Energy System Innovations (SESI) project, demand-side management—through programs like the Whole Building Energy Retrofit Program (WBERP) and Energy Retrofit Program (ERP) — accounts for nearly 10% of the savings, for a cumulative savings of over $13 million since the baseline year. In 2016, a new initiative launched to develop, test, and implement data technologies that can help solidify a “Smart Campus” infrastructure, which will maximize efficiencies in operations and maintenance and reduce costs, with enhanced analytical opportunities.

Expanded Alternative Transportation Options

Stanford’s Transportation Demand Management (TDM) program plays a critical role in the university’s sustainability goals, and is one of the most comprehensive in the country. The program actively works to reduce commuter emissions and encourage alternative transportation.

Operated through Parking and Transportation Services (P&TS), the TDM program aims to reduce university-related traffic impacts, emissions, and parking demand. In 2016, less than half of university employees drove alone to work on a regular basis. This represents a 33% decrease since 2002, the year that the TDM program began. Stanford has consistently met its

goals for “no new net commute trips” since 2000.

Sustainability Enhancements in Food and Living

Residential & Dining Enterprises (R&DE) is home to 13,000 students and serves 18,000 meals per day, and considers sustainability a core value and way of life across all aspects of operations. R&DE influences generations of students to lead sustainable lifestyles, not only on campus but in their future communities.

A key component of R&DE’s work includes collaborations with students and staff to foster behavior change, reduce energy and water consumption, minimize waste production, and integrate long-term sustainable thinking into how it operates. R&DE prioritizes local, organic, humanely raised, fairly traded food and options from family-owned farms and sustainable fisheries.

Higher Landfill Diversion Rate

Stanford’s waste reduction, recycling, composting, and solid waste program serves all academic and athletic areas, Residential & Dining Enterprises (R&DE), Faculty Staff Housing, Stanford University Medical Center, SLAC National Accelerator Laboratory, and all associated construction sites. Managing the campus’ reusable resources and minimizing waste is a crucial component of creating a more sustainable Stanford.

Efforts to minimize campus waste have significantly reduced the total amount of material Stanford sends to landfill: 8,945 tons in 2016, for a diversion rate of 64%, compared to its peak of 14,000 tons in 1998. The university continually improves and expands recycling and composting collection activities, identifies new markets for waste materials and recyclables, and raises awareness so that reducing, reusing, recycling, and composting become an ingrained set of behaviors.

Behavioral Sustainability

A critical component to reducing the university’s environmental footprint is engaging the community in sustainable practices. Formed in 2008, Stanford’s Office of Sustainability serves as the hub of Stanford’s sustainability programs, dubbed Sustainable Stanford.

Action-oriented programmatic initiatives led by the office help make sustainability both more tangible and more visible at Stanford. To support the multitude of campus operational efforts, individuals are asked to get involved with being “Cardinal Green.” Targeted programs focus on areas where individuals can have a significant impact, such as office and IT equipment, laboratories, and events. The My Cardinal Green program launched this year to provide a platform to encourage individual action and connect users to the plethora of resources across campus, rewarding completed sustainability efforts.

Appendix E
Sustainability at Stanford Executive Summary

Collaborative Governance

The Provost's Committee on Sustainability was launched in spring 2012 with the intention of bringing together key leaders on campus to focus on sustainability as a core value at Stanford. The committee reviews programs run by the Office of Sustainability and its partners, lends support for overcoming institutional barriers, and brings academic and operations leadership together. In implementing a campus sustainability strategy, the committee provides invaluable support to enable the success of key initiatives among students, staff, and faculty alike. Each of these initiatives directly supports the strategies and actions laid out in the Sustainability 3.0 plan.

Implementing and Measuring Sustainability

- Stanford's own sustainable-building rating
- National sustainability rating and third-party evaluations
- Sustainable athletics
- Residential education
- Deskside recycling and composting

Educating and Training the Stanford Community

- Celebrating Sustainability
- My Cardinal Green
- Sustainability curriculum
- Employee training
- Green Event program

The entire Sustainability at Stanford Annual Report 2016-17 may be found online at:
http://sustainability-year-in-review.stanford.edu/2017/

Appendix F
Stanford Alternative Means Programs
2001-2017

Appendix F
Stanford Alternative Means Programs

F.1 Annual Reporting of Select LEED Credits

SSc4.1-4, Alternative Transportation

Reference annual GUP reporting on net trips during peak commuting hours

Stanford's annual reporting on "no net new commute trips" is provided in Appendix B (Condition G.4) and in Appendix D.

Submit an updated Transportation Demand Management Program document or similar narrative that describes alternative transportation services

Stanford's annual reporting on the TDM Program is provided in Appendix B (Condition G.2).

WEc1, Water Efficient Landscaping

Report the annual percentage of surface water (non-potable) vs. groundwater (potable) water in the lakewater irrigation system

Lakewater Irrigation System Supply Sources					
	Surface Water		Groundwater		Total
Year	Quantity (acre-feet)	Percentage	Quantity (acre-feet)	Percentage	Quantity (acre-feet)
2010	809	70%	342	30%	1,151
2011	1,019	85%	182	15%	1,201
2012	1,032	82%	238	18%	1,270
2013	1,056	77%	311	23%	1,367
2014	72	6%	1,142	94%	1,214
2015	364	34%	721	66%	1,085
2016	215	24%	690	76%	905
2017	585	56%	456	44%	1,041

The increased use of groundwater in the lakewater irrigation system between 2014 and 2016 was due to the drought. Groundwater wells were pumped to meet demand within the lakewater irrigation system and to fill storage within Felt Lake. The majority of campus lakewater irrigation demand was met by groundwater sources. The overall annual percentages do not reflect the Surface Water/Groundwater breakdown that occurred on a monthly basis (where a blend of both sources was used). However, the average groundwater percentage of the total lakewater irrigation system is 59% over the last 5 years, and 38% over the last 17 years (since 2001). "Abnormal" years were considered in the calculations for the Alternative Means approach, and Stanford demonstrated that with or without abnormal years, Stanford met the credit requirements for WEc1. Other "abnormal years" included 2006, when Felt Lake was drained, and 2007, when sediment removal at Felt Lake,

and groundwater pumping was higher than normal. 2014 through 2016 are other examples of "abnormal years" with the drought.

Note: The sources of water contributing to the lakewater irrigation system have been tracked through various methods in order to fit within reporting formats, including that of BAWSCA and GUP reporting. Prior to 2015, the volume entering storage was subtracted from total surface water diverted and water used from storage. In 2015, water added to storage was subtracted from the metered groundwater or surface water source to better account for the source contributing to storage. Prior to 2016, all water coming from storage was assumed to be surface water. In order to better reflect the sources of water used in the lakewater irrigation system, beginning in 2016 the source of stored water is being accounted for by tracking the volume of groundwater that enters and is used from storage. Assumptions for this new method include a starting point of zero groundwater in the non-potable irrigation system storage as of July 2013, surface water entering storage first, and groundwater used from storage first.

EAp3, Fundamental Refrigerant Management

Report when phase-out of CFC refrigerants in the central plant is complete.

The scheduled phase-out described in EAp3 has not changed. The demolition of the central energy plant began in FY 15 and was complete by November 2015. Therefore, the prohibited CFC refrigerant has been removed.

This will also indicate when EAc4, Enhanced Refrigerant Management, may be submitted for campus-wide pre-approval.

The Central Energy Plant refrigeration calculation described in EAp3 has not changed. Each building will continue to fill out the template to show full compliance with this credit.

MRp1, Storage & Collection of Recyclables; MRc2.1-2.2, Construction Waste Management

Confirm that PSSI is still Stanford University's waste contractor, and that PSSI's waste diversion programs are ongoing.

PSSI is Stanford University's waste contractor for all construction projects on campus, and their waste diversion programs are ongoing. Stanford's construction and demolition waste diversion rate for calendar year 2016 was 87.85%, meeting both the minimum 50% diversion rate and the 75% diversion rate to maintain two credits under MRc2 for the campus as a whole.

Reference reporting already sent to the County under the Solid Waste Management Act of CA (AB 939).

Stanford submitted the County of Santa Clara Countywide AB 939 Quarterly Summary to the Santa Clara County Integrated Waste Management Program on or before March 2, May 30, August 30, and November 30, 2016.

IDc1.3, Green Housekeeping

Confirm that Unicco is Stanford University's cleaning service provider.

C&W Services, previously known as DTZ or Unicco, is Stanford University's cleaning service provider.

IDc1.4, Green Campus Operations Education

Provide update on any new green campus operations, education campaigns, newsletters, or other forms of green campus operations education

The description of green campus operations provided in the Green Building Ordinance materials did not change during this year.

ISc1.6, Green Dining

Provide an update on any green dining initiatives or education

The description of green dining initiatives and education provided in the Green Building Ordinance materials did not change during this year.

Water Reduction Credits

Report on 'water bank' balance using water calculation template.

The reporting period for this credit is July 1 to June 30, to coincide with Stanford's annual GUP water consumption reporting period for SFPUC purchases and water conservation projects. There were four building projects that affected the water bank balance during this period.

Water Bank Balance			
Year	Projects	Change (mgd)	Cumulative Balance (mgd)
2010	Previous Projects under GUP	0.683880	0.683880
2011	Water conservation projects	0.012446	0.696326
2012	Water conservation projects	0.009141	0.705467
2013	Water conservation projects	0.017884	0.723351
2014	Water conservation projects	0.018824	0.742175
2015	Water conservation projects and SESI	0.422232	1.164407
2016	Water conservation projects and new building projects	0.005922	1.1703287
2017	Water conservation projects and new building projects	0.001648	1.1719765

* SESI: Stanford Energy Systems Innovations

F.2 Annual Reporting of Plug-In Electric Vehicle Charging Systems

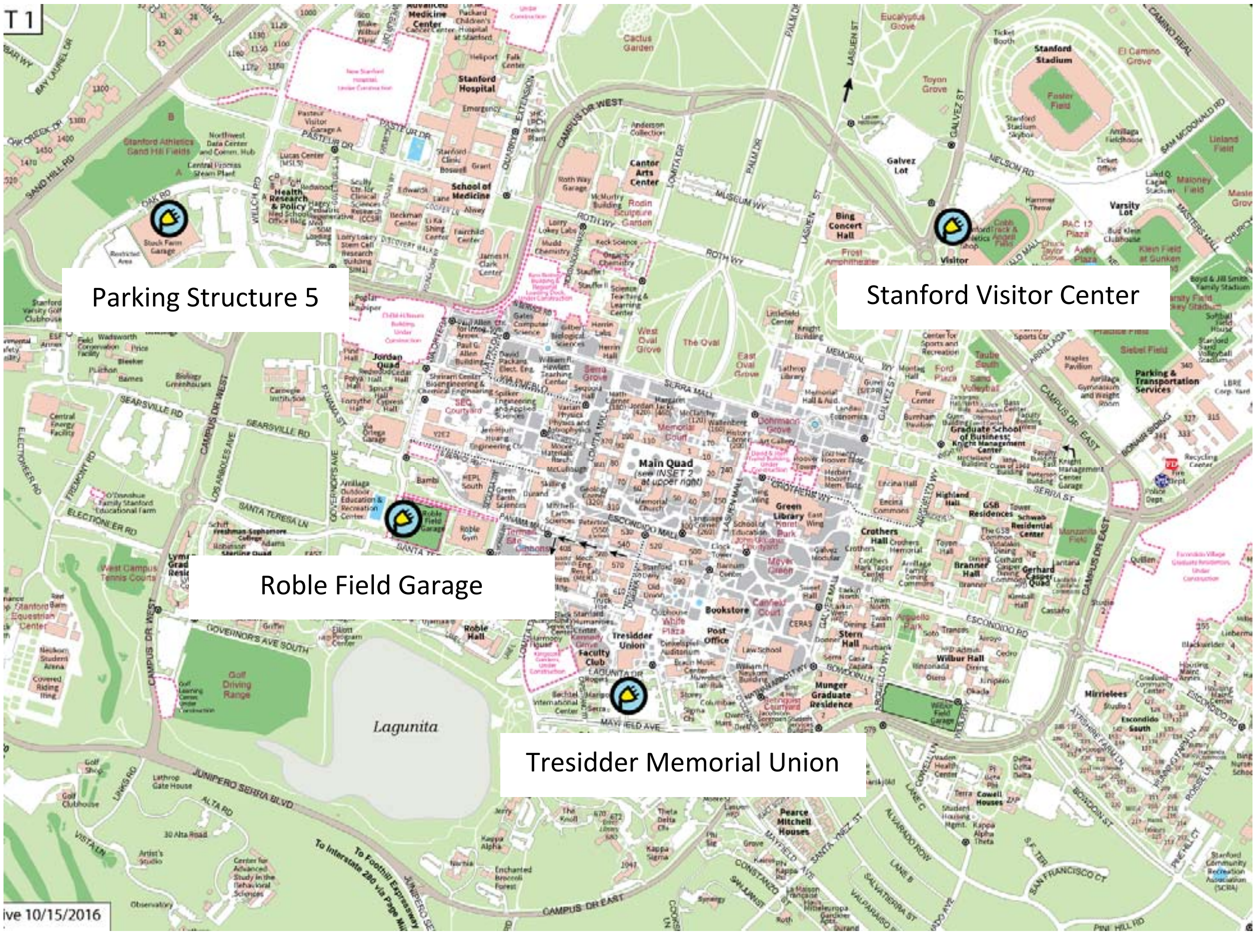
The parking baseline is the total number of parking spaces recorded within the site boundary, in Annual Report 13 (18,270 spaces), plus all projects approved from September 1, 2013 to February 14, 2014 (Acorn parking lot, 12 net new spaces; Searsville parking lot, 592 spaces), or a total of **18,874 spaces**. As of February 14, 2014, there were six parking spaces that had access to EV charging on-campus that counted towards meeting the Ordinance (see Figure F-1).

As of August 31, 2017, the total number of parking spaces on campus is **18,289**, which is below the baseline number of spaces. Therefore, Stanford is in compliance with the County of Santa Clara's Ordinance for plug-in electric vehicle charging systems.

Date	Parking spaces tally	No. of spaces above baseline	No. of EV charging spaces required by PEV Ordinance	No. of EV charging spaces on campus	In compliance with PEV Ordinance
End of FY 13 (August 31, 2013)	18,270	N/A	N/A	N/A	N/A
Baseline as of February 14, 2014	18,874	0	0	6	Yes
End of FY 14 (August 31, 2014)	18,796	(78)	0	6	Yes
End of FY 15 (August 31, 2015)	18,101	(773)	0	14	Yes
End of FY 16 (August 31, 2016)	18,112	(762)	0	24	Yes
End of FY 17 (August 31, 2017)	18,289	(585)	0	78	Yes

Note: All spaces are mixed-use parking lots.

FIGURE F-1: CURRENT EV CHARGER LOCATIONS AS OF AUGUST 31, 2017



Locations	Number of ports	Charging type
Parking Structure 5 / Stock Farm Garage	16	Level 2
Stanford Visitor Center	4	Level 2
Tresidder Memorial Union	4	Level 2
Roble Field Garage	54	Level 2
Total	**78**	